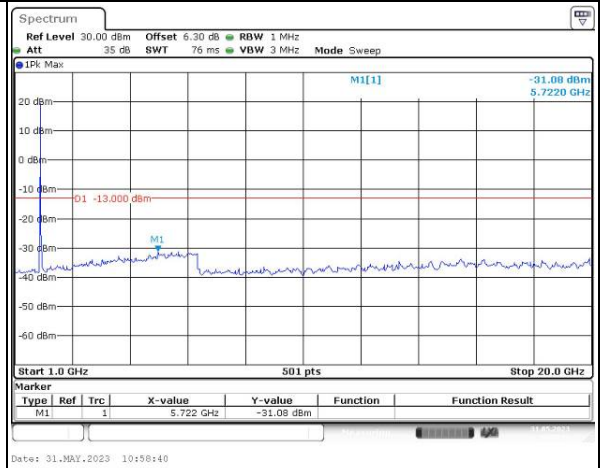
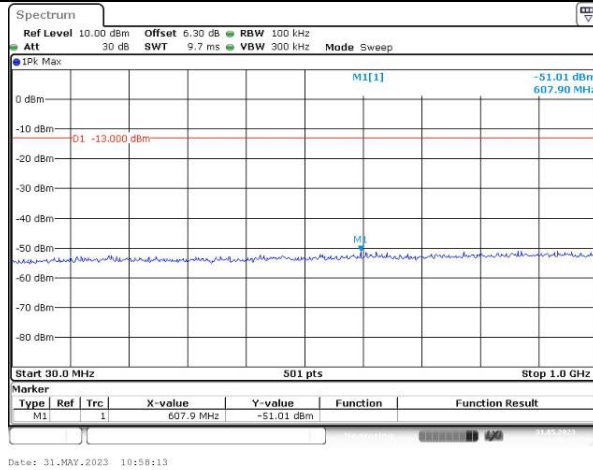


Spurious Emissions at Antenna Terminal

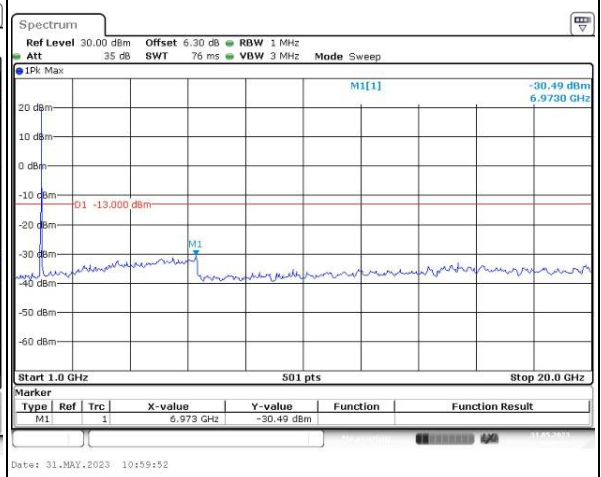
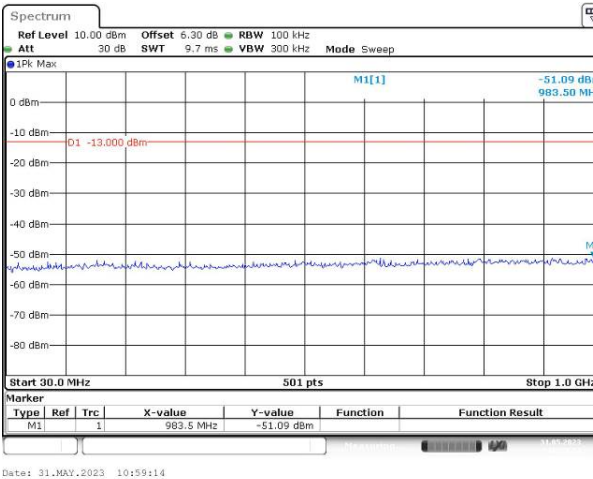
Channel

10MHz Bandwidth QPSK

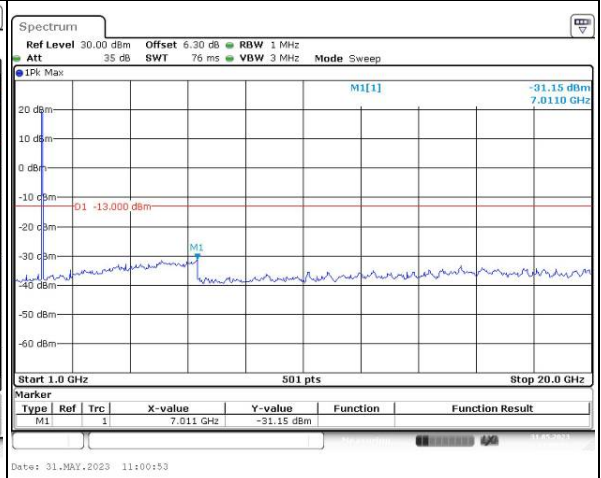
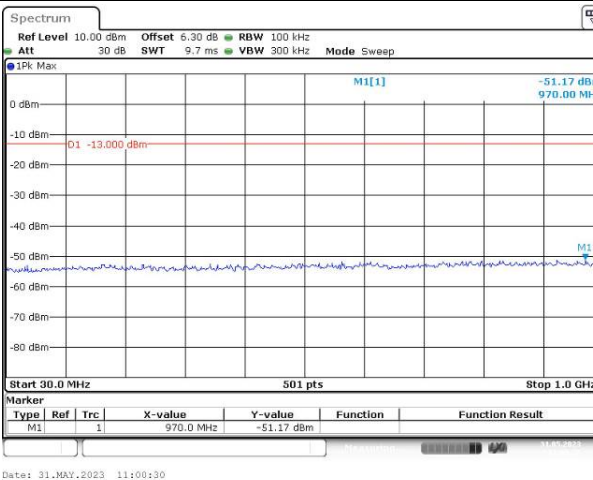
Lowest



Middle



Highest

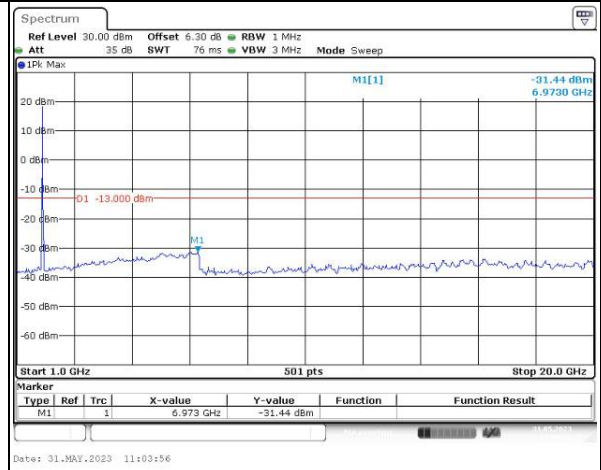
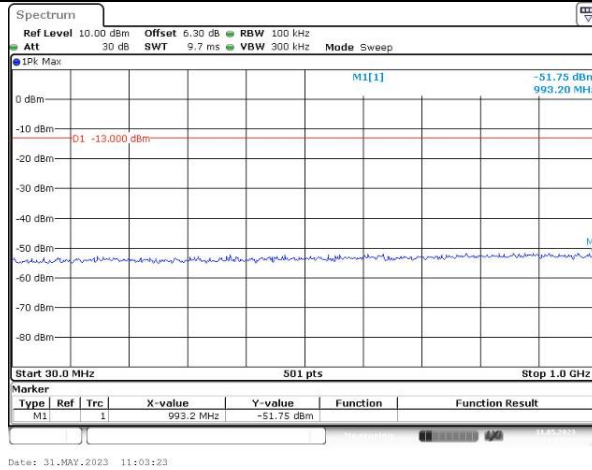


Spurious Emissions at Antenna Terminal

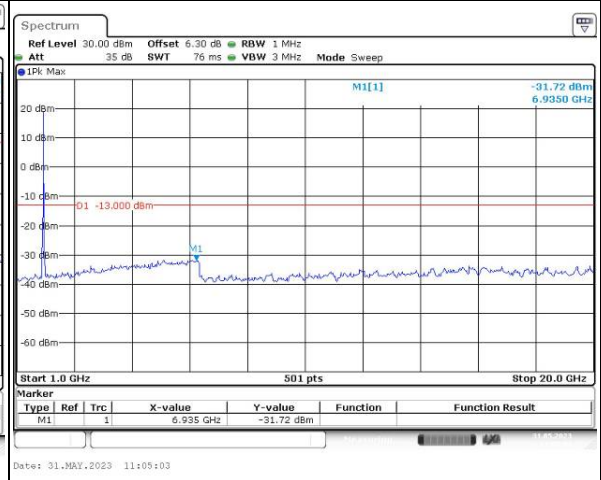
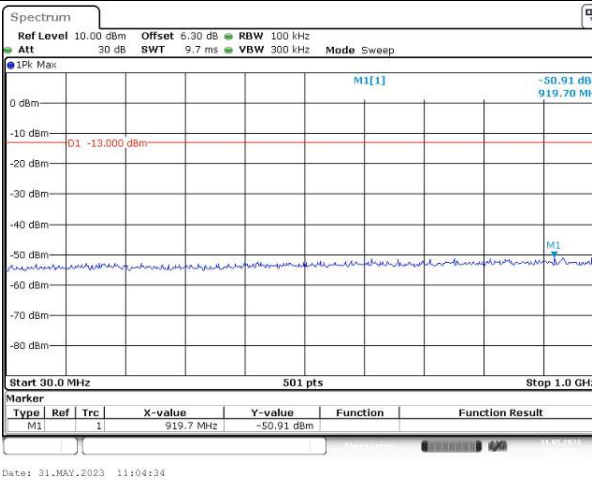
Channel

15MHz Bandwidth QPSK

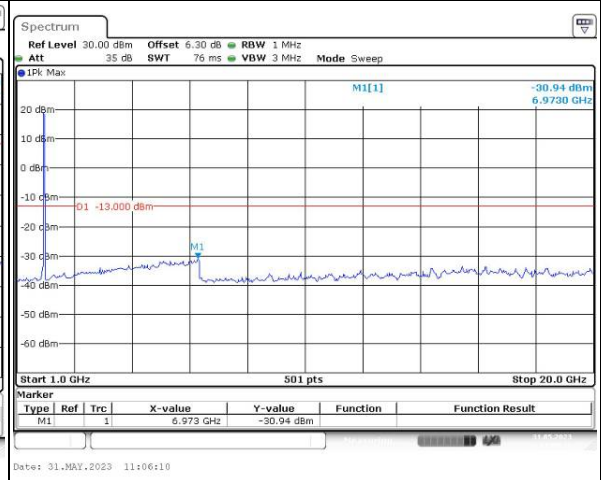
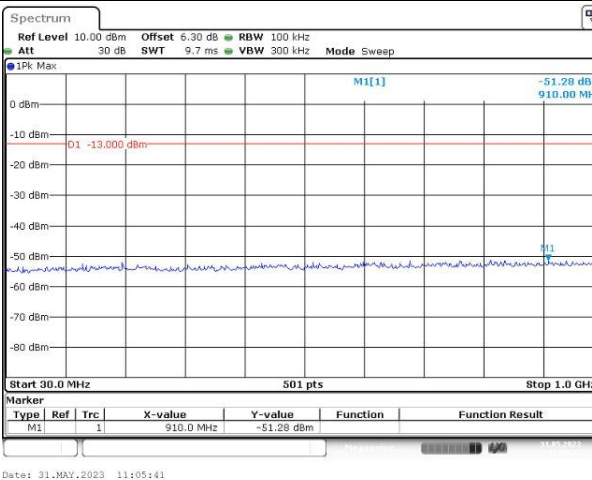
Lowest



Middle



Highest

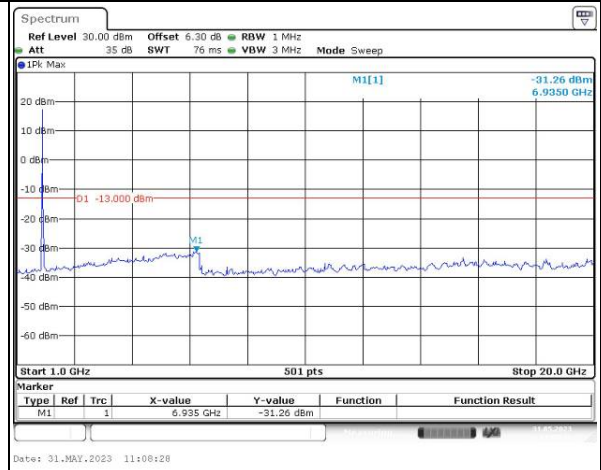
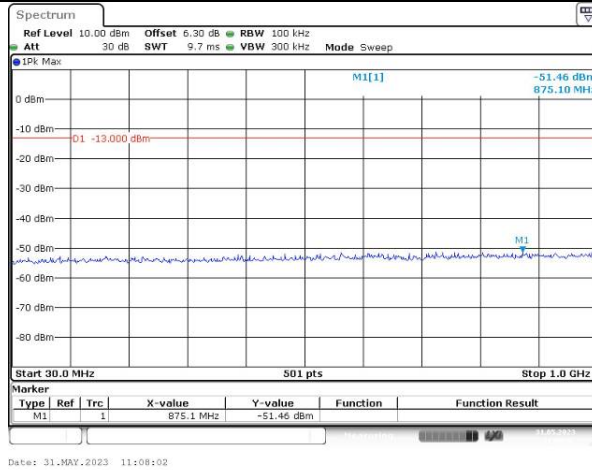


Spurious Emissions at Antenna Terminal

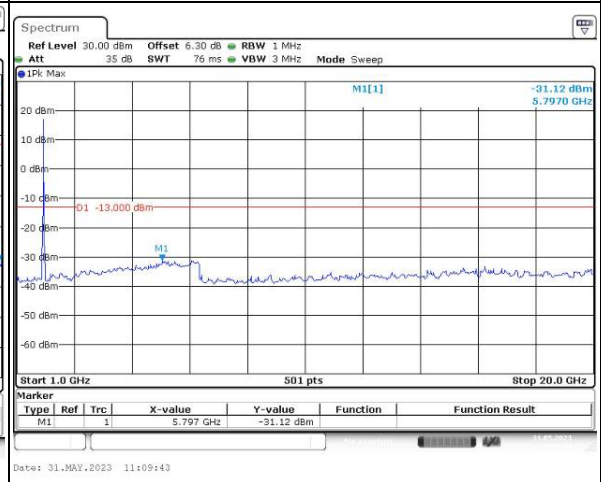
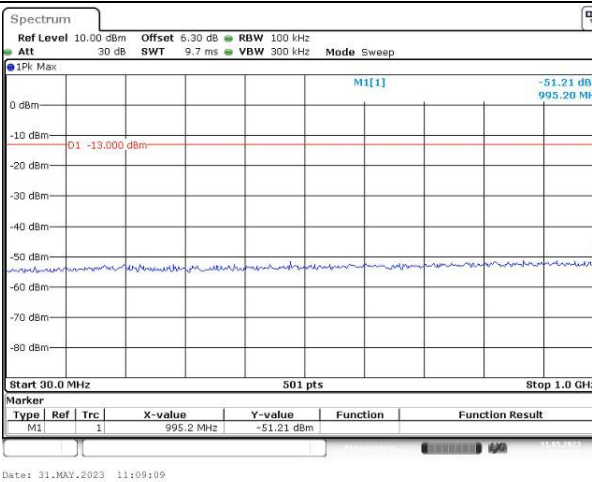
Channel

20MHz Bandwidth QPSK

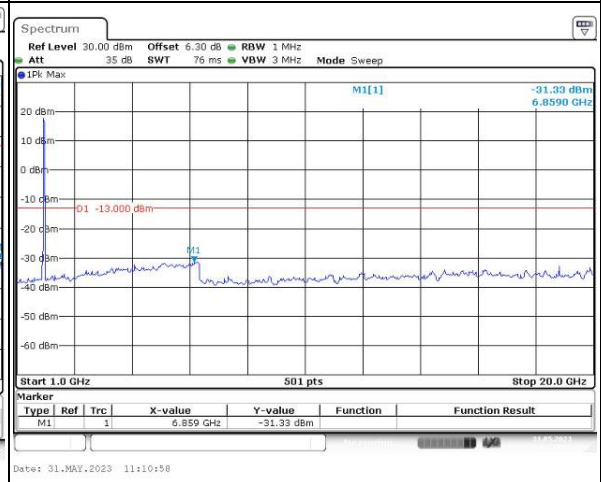
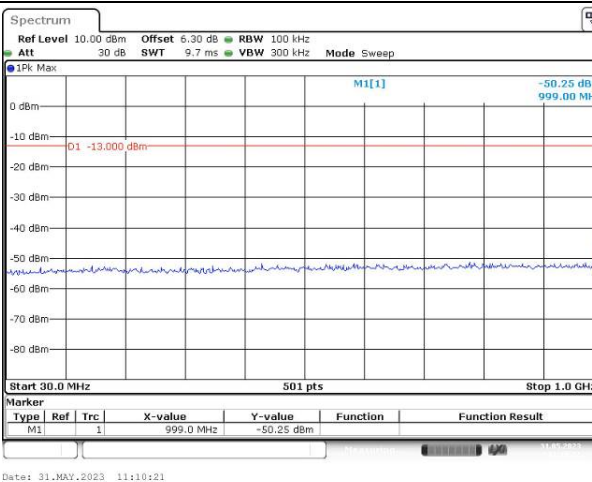
Lowest



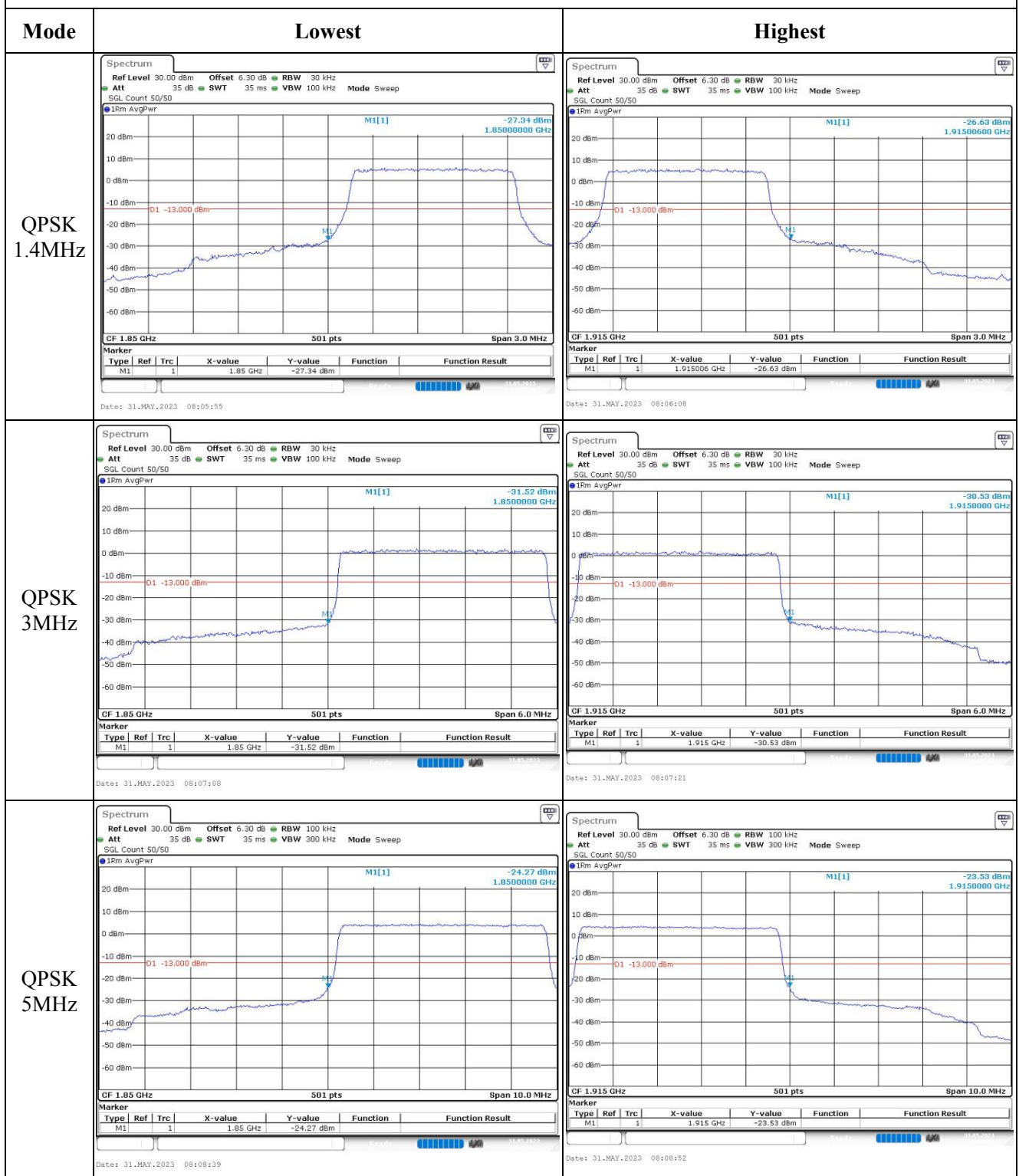
Middle



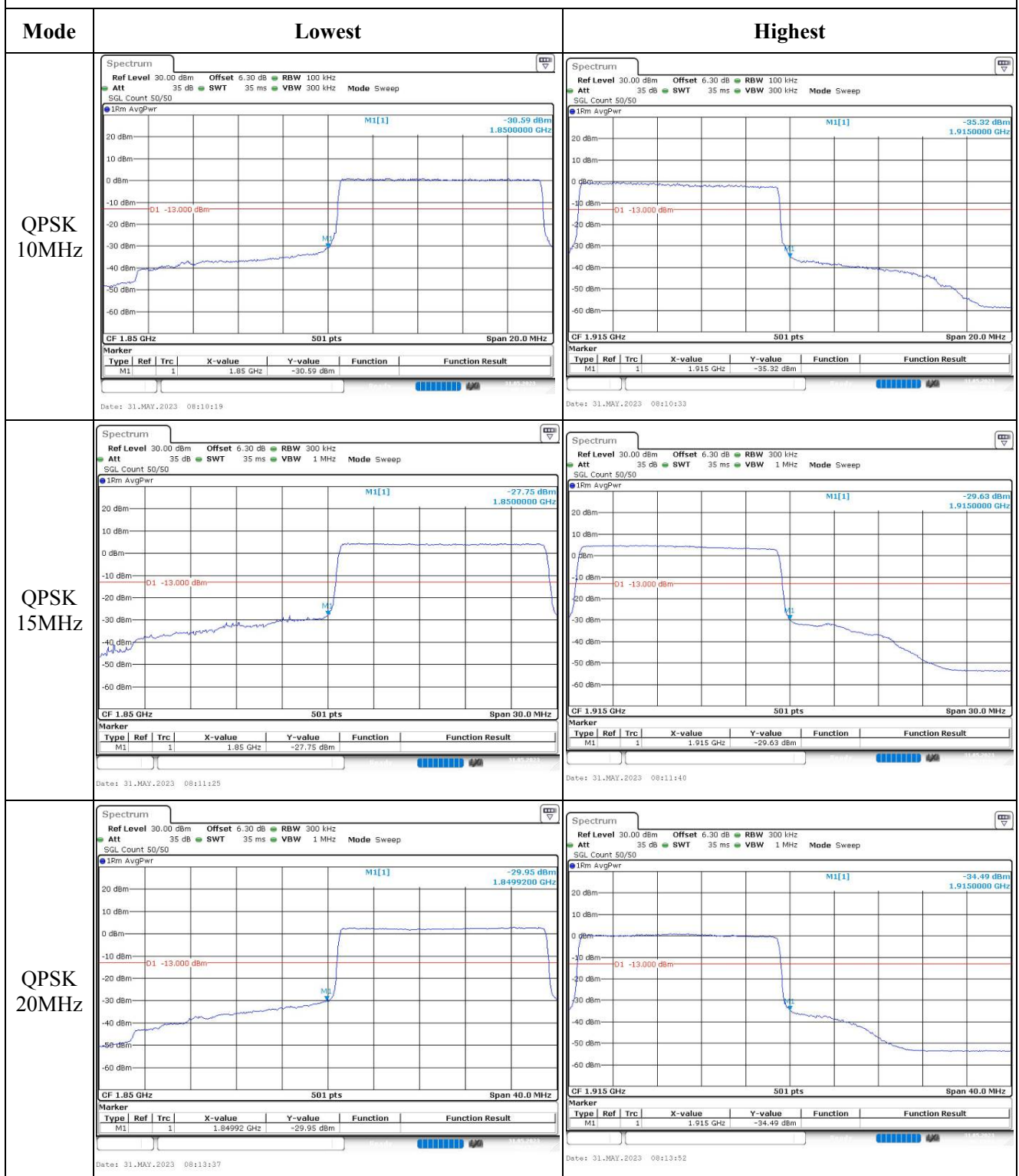
Highest



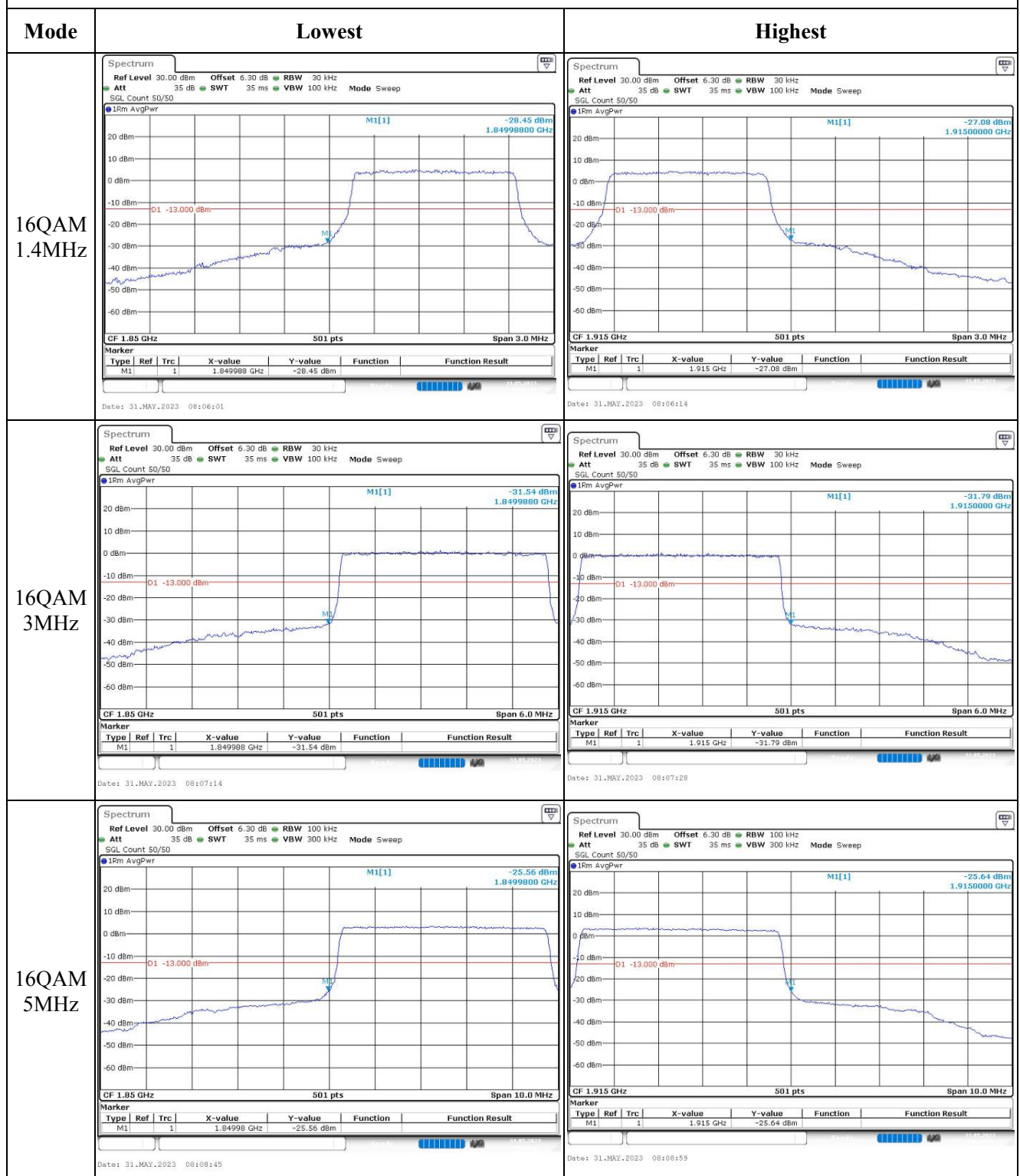
Out of band emission, Band Edge



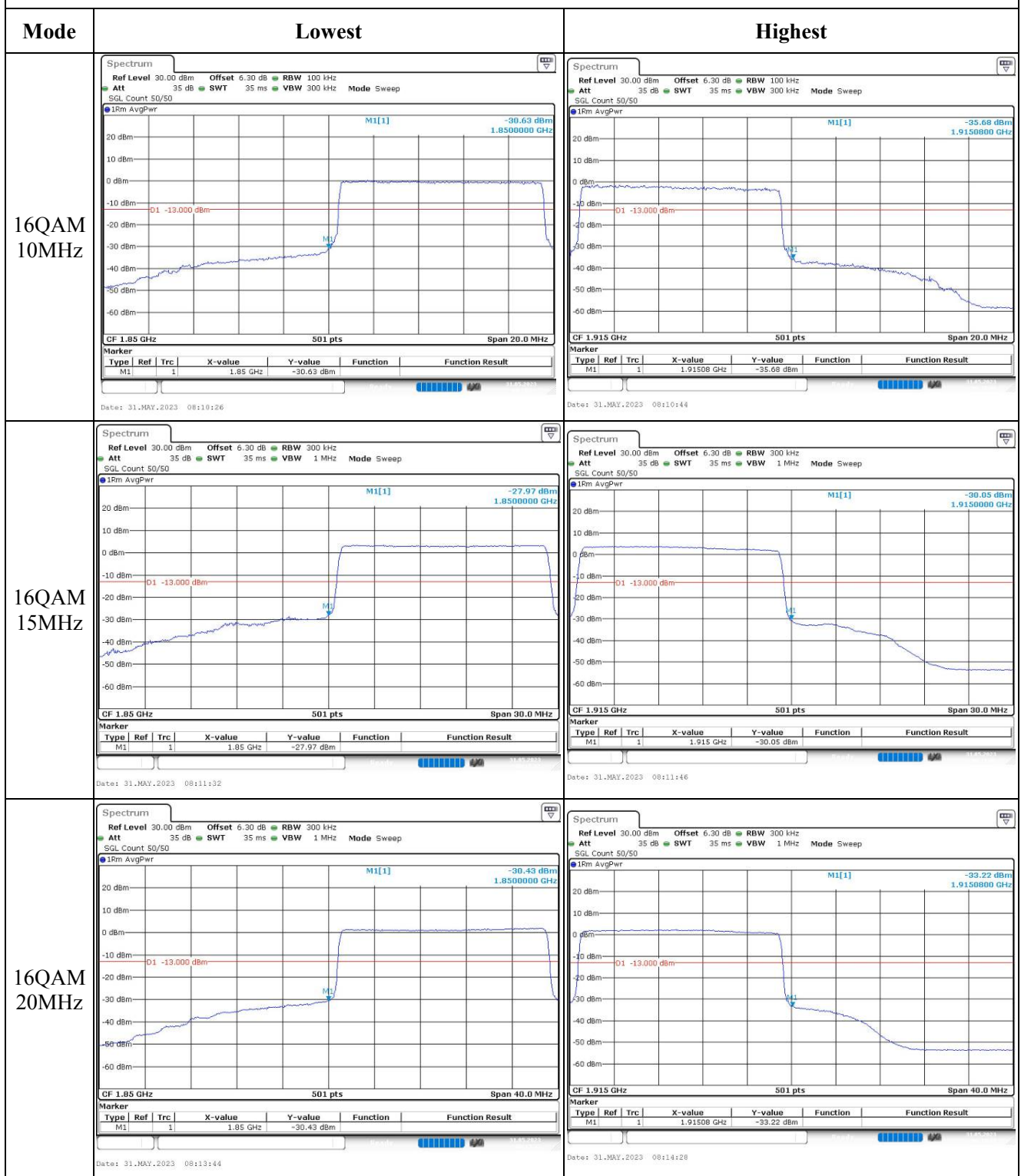
Out of band emission, Band Edge



Out of band emission, Band Edge



Out of band emission, Band Edge



4.15 Antenna Port Test Data and Results for LTE Band 26

Serial Number:	25K9-3	Test Date:	2023/05/30~2023/06/13
Test Site:	RF	Test Mode:	Transmitting
Tester:	George Chen	Test Result:	Pass

Environmental Conditions:

Temperature:	26.7~27.2	Relative Humidity:	49~55	ATM Pressure:	99.6~100.0
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101474	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100001	Each time	N/A
Mini-Circuits	DC Block	BLK-18-S+	1554403	Each time	N/A
Unknown	Coaxial tee connector	Unknown	2204004	Each time	N/A
R&S	Wideband Radio Communication Tester	CMW500	149218	2023/3/31	2024/3/30
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2023/3/31	2024/3/30
UNI-T	Multimeter	UT39A+	C210582554	2022/9/29	2023/9/28
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	N/A	N/A

* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Frequency For Each Mode:

Operation Bandwidth	Lowest Frequency For 90S (MHz)	Highest Frequency For 90S (MHz)	Channel Cross 90S and 22H	Lowest Frequency For 22H (MHz)	Middle Frequency For 22H (MHz)	Highest Frequency For 22H (MHz)
1.4MHz	814.7	823.3	824	824.7	831.5	848.3
3MHz	815.5	822.5	824	825.5	831.5	847.5
5MHz	816.5	821.5	824	826.5	831.5	846.5
10MHz	819	/	824	829	831.5	844
15MHz	821.5	/	824	831.5	836.5	841.5

Test Data:**RF Output Power:**

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)						Maximum ERP (dBm)	ERP Limit (dBm)
		Lowest Channel For 90S	Highest Channel For 90S	Cross Channe	Lowest Frequency For 22H/ RSS-132	Middle Frequency For 22H/ RSS-132	Highest Frequency For 22H/ RSS-132		
1.4MHz QPSK	RB1#0	23.03	23.01	23.04	23.02	23.03	23.08	19.66	38.45
	RB1#3	23.24	23.25	23.14	23.18	23.21	23.27		
	RB1#5	23.1	23.15	23.16	23.12	23.04	23.09		
	RB3#0	23.1	23.08	23.17	23.13	23.19	23.23		
	RB3#3	23.15	23.14	23.16	23.21	23.2	23.25		
	RB6#0	22.1	22.11	22.13	22.16	22.16	22.15		
1.4MHz 16QAM	RB1#0	22.22	22.21	22.21	22.13	22.12	22.17	18.8	38.45
	RB1#3	22.4	22.38	22.34	22.32	22.32	22.36		
	RB1#5	22.21	22.21	22.24	22.14	22.13	22.22		
	RB3#0	22.17	22.18	22.18	22.4	22.4	22.41		
	RB3#3	22.28	22.25	22.23	22.31	22.3	22.41		
	RB6#0	21.16	22.14	22.17	21.12	21.12	21.21		
3MHz QPSK	RB1#0	23.06	23.04	23.04	23.14	23.12	23.14	19.54	38.45
	RB1#8	23	23.01	23.01	23.13	23.14	23.1		
	RB1#14	23.05	23.05	23.06	23.12	23.13	23.15		
	RB6#0	22.01	22.04	22.05	22.05	22.07	22.1		
	RB6#9	22.11	22.12	22.13	22.14	22.08	22.14		
	RB15#0	22.14	22.12	22.17	22.31	22.14	22.18		
3MHz 16QAM	RB1#0	22.69	22.68	22.65	22.25	22.31	22.21	19.13	38.45
	RB1#8	22.7	22.71	22.71	22.36	22.26	22.19		
	RB1#14	22.74	22.71	22.65	22.34	22.3	22.19		
	RB6#0	21.12	21.12	21.14	21.05	21.08	21.08		
	RB6#9	21.18	21.18	21.19	21.15	21.16	21.07		
	RB15#0	21.21	21.23	21.24	21.16	21.15	21.27		
5MHz QPSK	RB1#0	22.98	22.92	22.91	23.04	23.07	22.98	19.54	38.45
	RB1#13	23.15	23.14	23.14	23.13	23.13	23.09		
	RB1#24	23.06	23.04	22.05	23.04	23.06	23.09		
	RB15#0	22.1	22.13	22.13	22.15	22.1	22.21		
	RB15#10	22.17	22.17	22.16	22.17	22.18	22.15		
	RB25#0	22.14	22.15	22.13	22.18	22.17	22.14		
5MHz 16QAM	RB1#0	21.93	21.93	21.94	22.35	22.39	22.13	18.9	38.45
	RB1#13	22.1	22.14	21.15	22.21	22.51	22.25		
	RB1#24	22	22.04	22.06	22.41	22.4	22.18		
	RB15#0	21.14	21.16	21.13	21.14	21.15	21.25		
	RB15#10	21.18	22.16	22.18	21.18	21.19	21.19		
	RB25#0	21.21	21.23	21.24	21.21	21.2	21.24		

10MHz QPSK	RB1#0	22.99	22.84	22.83	23.12	23.1	23.07	19.7	38.45
	RB1#25	23.31	23.14	23.3	23.14	23.23	23.24		
	RB1#49	23.15	23.14	23.15	23.15	23.14	23.18		
	RB25#0	22.17	22.15	22.16	22.24	22.21	22.23		
	RB25#25	22.23	22.23	23.24	22.21	22.24	22.16		
	RB50#0	22.21	22.21	22.25	22.24	22.26	22.24		
10MHz 16QAM	RB1#0	22.67	22.65	22.63	22.31	22.3	22.14	19.29	38.45
	RB1#25	22.9	22.84	22.81	22.41	22.47	22.27		
	RB1#49	22.82	22.81	22.75	22.31	22.31	22.21		
	RB25#0	21.22	21.26	21.28	21.28	21.25	21.35		
	RB25#25	21.27	21.27	21.24	21.26	21.26	21.27		
	RB50#0	21.22	21.25	21.26	21.34	21.29	21.25		
15MHz QPSK	RB1#0	22.96	22.96	22.96	22.87	22.97	22.95	19.54	38.45
	RB1#38	23.12	23.15	23.14	23.05	23.09	23.09		
	RB1#74	23.11	23.12	23.13	23.02	23.04	23.08		
	RB36#0	22.13	22.13	22.14	22.13	22.15	22.18		
	RB36#39	22.2	22.21	22.23	22.25	22.24	22.18		
	RB75#0	22.15	22.16	22.15	22.31	22.21	22.17		
15MHz 16QAM	RB1#0	22.17	22.16	22.17	22.34	22.44	22.63	19.67	38.45
	RB1#38	22.3	22.31	23.28	22.53	22.54	22.76		
	RB1#74	22.32	22.34	22.34	22.48	22.49	22.72		
	RB36#0	21.13	21.13	21.16	21.13	21.14	21.17		
	RB36#39	21.21	21.24	21.24	22.23	21.21	21.15		
	RB75#0	21.17	21.17	21.18	21.23	21.2	21.18		

Note:

ERP= Conducted Power(dBm) - Lc(dB) + G_T(dBd)G_T(dBd)=G_T(dBi)-2.15

For Part 90, ERP limit is 50dBm, maximum ERP is 19.7 dBm, so compliant the limit.

For IC, ERP Limit is 34.77dBm, maximum ERP is 19.7 dBm, so compliant the limit.

Result:**Pass**

Peak-to-average Ratio(PAR)					
Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Frequency For 22H	Middle Frequency For 22H	Highest Frequency For 22H	
15MHz QPSK	RB1#0	5.28	5.68	5.42	13
	RB75#0	5.45	5.59	5.42	13
15MHz 16QAM	RB1#0	5.91	6.55	6.35	13
	RB75#0	6.38	6.43	6.35	13
Result:					Pass

Occupied Bandwidth						
Operation Mode	99% Occupied Bandwidth (MHz)					
	Lowest For 90S	Highest For 90S	Cross	Lowest For 22H	Middle For 22H	Highest For 22H
1.4MHz QPSK	1.096	1.096	1.102	1.096	1.102	1.108
1.4MHz 16QAM	1.102	1.096	1.102	1.096	1.09	1.102
3MHz QPSK	2.671	2.671	2.695	2.671	2.695	2.683
3MHz 16QAM	2.683	2.671	2.683	2.671	2.683	2.683
5MHz QPSK	4.531	4.511	4.531	4.511	4.511	4.511
5MHz 16QAM	4.491	4.531	4.491	4.491	4.531	4.511
10MHz QPSK	8.942	/	8.942	8.942	8.942	8.942
10MHz 16QAM	8.942	/	8.902	8.942	8.982	8.942
15MHz QPSK	13.473	/	13.473	13.533	13.533	13.413
15MHz 16QAM	13.533	/	13.473	13.533	13.533	13.533

Operation Mode	26 dB Occupied Bandwidth (MHz)					
	Lowest For 90S	Highest For 90S	Cross	Lowest For 22H	Middle For 22H	Highest For 22H
1.4MHz QPSK	1.308	1.318	1.317	1.311	1.32	1.302
1.4MHz 16QAM	1.326	1.288	1.317	1.311	1.284	1.314
3MHz QPSK	2.892	2.881	2.89	2.879	2.88	2.892
3MHz 16QAM	2.892	2.893	2.902	2.891	2.88	2.868
5MHz QPSK	4.94	4.949	4.965	4.947	4.96	5.46
5MHz 16QAM	4.94	4.969	4.965	4.947	4.94	4.96
10MHz QPSK	9.68	/	9.696	9.738	9.6	9.68
10MHz 16QAM	9.52	/	9.576	9.618	9.64	9.64
15MHz QPSK	14.76	/	14.746	14.82	14.842	14.64
15MHz 16QAM	14.76	/	14.805	14.7	14.722	14.64
Note: The test plots please refer to the Plots of Occupied Bandwidth						

Spurious Emissions at Antenna Terminal

Result:	Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal.
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Out of band emission, Band Edge

Result:	Pass, Please refer to the test plots of Out of band emission, Band Edge.
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Frequency Stability (For FCC)

Test Modulation:	15 MHz QPSK		Test Channel:	821.5	MHz
Test Item	Temperature (°C)	Voltage (V _{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.87	-1.85	-0.002	2.5
	-20	3.87	-6.89	-0.008	2.5
	-10	3.87	6.35	0.008	2.5
	0	3.87	7.23	0.009	2.5
	10	3.87	7.24	0.009	2.5
	20	3.87	-9.45	-0.011	2.5
	30	3.87	-7.56	-0.009	2.5
	40	3.87	-5.63	-0.007	2.5
	50	3.87	-8.34	-0.010	2.5
Frequency Stability vs. Voltage	20	3.47	-6.52	-0.008	2.5
	20	4.45	6.03	0.007	2.5
Result:				Pass	

Test Modulation:	15 MHz QPSK		Test Channel:	821.5	MHz
Test Item	Temperature (°C)	Voltage (V _{dc})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.87	-3.3	-0.004	2.5
	-20	3.87	6.26	0.008	2.5
	-10	3.87	5.94	0.007	2.5
	0	3.87	8.05	0.010	2.5
	10	3.87	-7.23	-0.009	2.5
	20	3.87	-7.65	-0.009	2.5
	30	3.87	7.5	0.009	2.5
	40	3.87	-8.54	-0.010	2.5
	50	3.87	-5.49	-0.007	2.5
Frequency Stability vs. Voltage	20	3.47	-7.54	-0.009	2.5
	20	4.45	6.32	0.008	2.5
Result:				Pass	

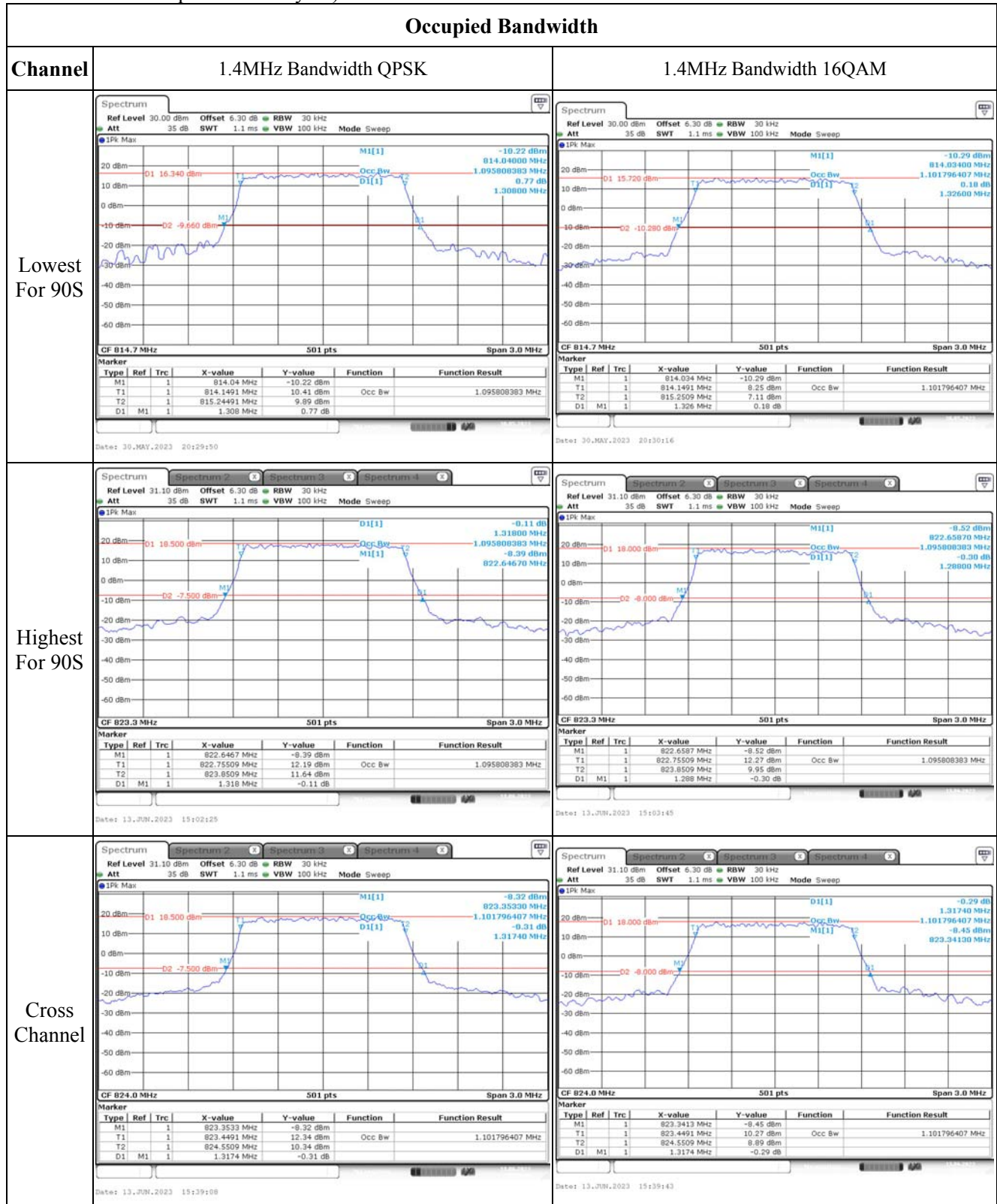
Test Modulation:	15 MHz QPSK		Test Channel:	831.5	MHz
Test Item	Temperature (°C)	Voltage (V _{dc})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.87	-1.92	-0.002	2.5
	-20	3.87	-7.37	-0.009	2.5
	-10	3.87	6.94	0.008	2.5
	0	3.87	7.29	0.009	2.5
	10	3.87	7.08	0.009	2.5
	20	3.87	-9.71	-0.012	2.5
	30	3.87	-7.47	-0.009	2.5
	40	3.87	-5.65	-0.007	2.5
	50	3.87	-8.68	-0.010	2.5
Frequency Stability vs. Voltage	20	3.47	-6.62	-0.008	2.5
	20	4.45	6.05	0.007	2.5
Result:				Pass	

Test Modulation:	15 MHz 16QAM		Test Channel:	831.5	MHz
Test Item	Temperature (°C)	Voltage (V _{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.87	-3.1	-0.004	2.5
	-20	3.87	6.14	0.007	2.5
	-10	3.87	5.96	0.007	2.5
	0	3.87	8.01	0.010	2.5
	10	3.87	-7.1	-0.009	2.5
	20	3.87	-7.27	-0.009	2.5
	30	3.87	7.1	0.009	2.5
	40	3.87	-8.68	-0.010	2.5
	50	3.87	-5.49	-0.007	2.5
Frequency Stability vs. Voltage	20	3.47	-7.79	-0.009	2.5
	20	4.45	6.16	0.007	2.5
				Result:	Pass

Frequency Stability(For IC)						
Test Mode:	15M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (°C)	Voltage (V _{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.87	824.74	824.000	848.222	849.000
	-20	3.87	824.735	824.000	848.204	849.000
	-10	3.87	824.747	824.000	848.216	849.000
	0	3.87	824.729	824.000	848.218	849.000
	10	3.87	824.749	824.000	848.210	849.000
	20	3.87	824.734	824.000	848.207	849.000
	30	3.87	824.729	824.000	848.214	849.000
	40	3.87	824.745	824.000	848.221	849.000
	50	3.87	824.733	824.000	848.199	849.000
Frequency Stability vs. Voltage	20	3.47	824.749	824.000	848.221	849.000
	20	4.45	824.735	824.000	848.219	849.000
				Result:	Pass	

Test Mode:	15M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (°C)	Voltage (V _{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.87	824.734	824.000	848.275	849.000
	-20	3.87	824.733	824.000	848.264	849.000
	-10	3.87	824.748	824.000	848.269	849.000
	0	3.87	824.733	824.000	848.261	849.000
	10	3.87	824.727	824.000	848.282	849.000
	20	3.87	824.734	824.000	848.267	849.000
	30	3.87	824.746	824.000	848.257	849.000
	40	3.87	824.742	824.000	848.265	849.000
	50	3.87	824.740	824.000	848.280	849.000
Frequency Stability vs. Voltage	20	3.47	824.740	824.000	848.258	849.000
	20	4.45	824.730	824.000	848.263	849.000
					Result:	Pass

Test Plots(Note: The 6.3dB is the Insertion loss of the RF cable, Power splitter and DC Block, which was offset into the Spectrum Analyzer):

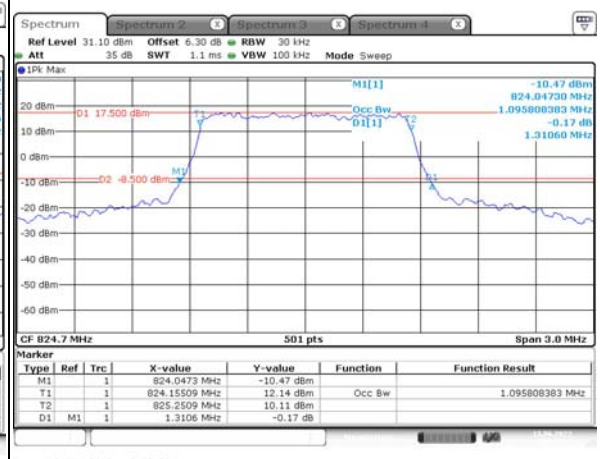
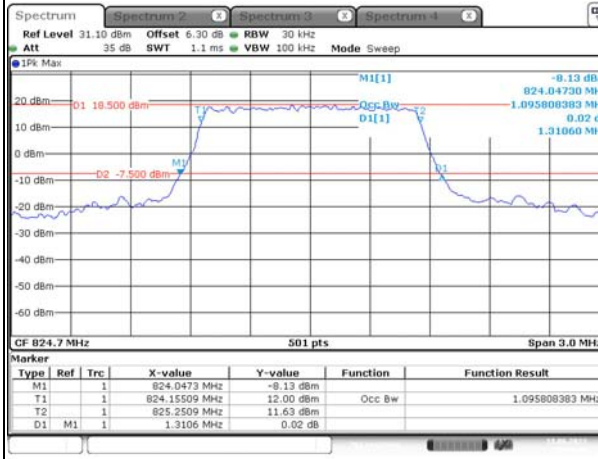
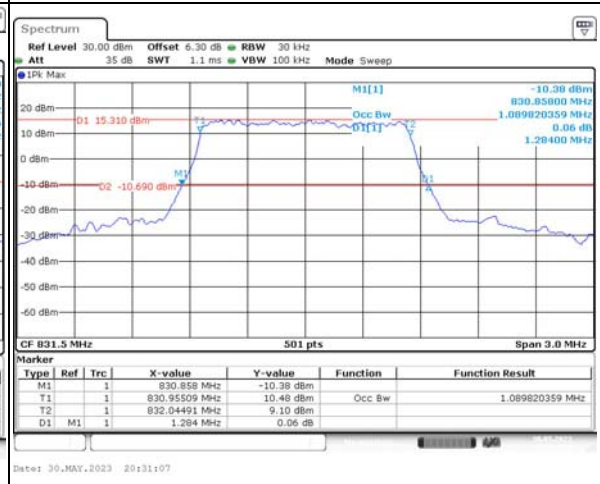
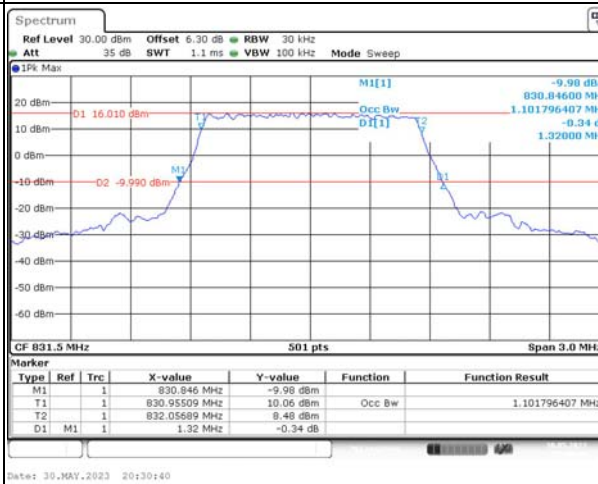
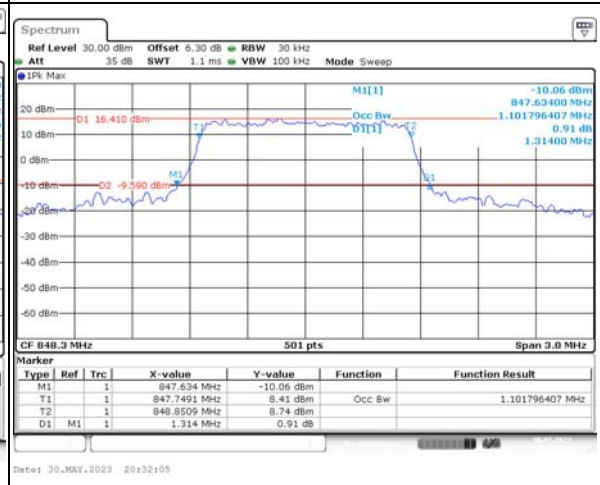
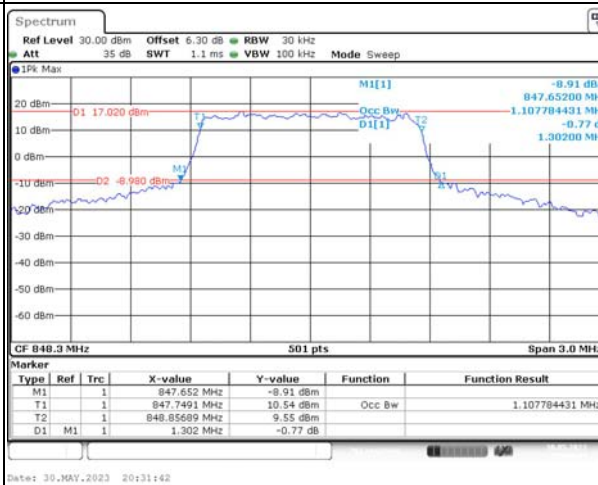


Occupied Bandwidth

Channel

1.4MHz Bandwidth QPSK

1.4MHz Bandwidth 16QAM

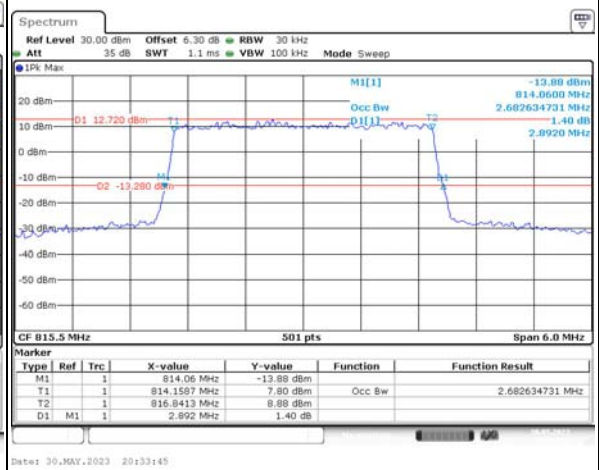
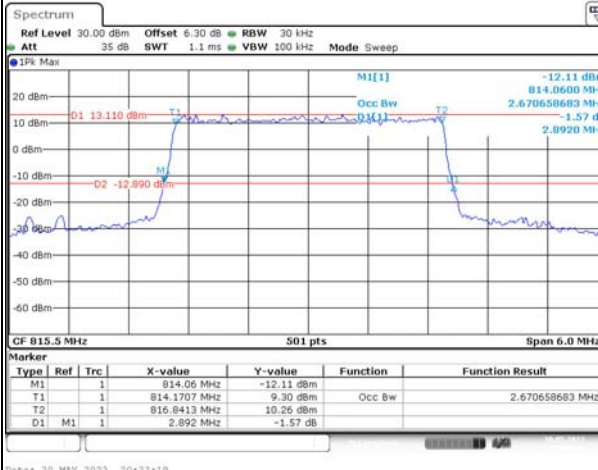
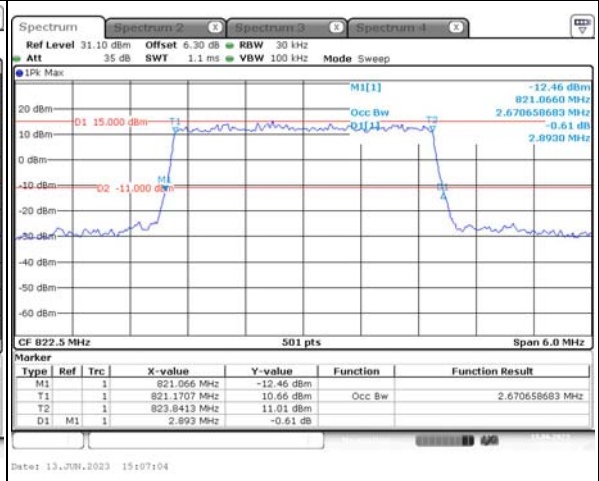
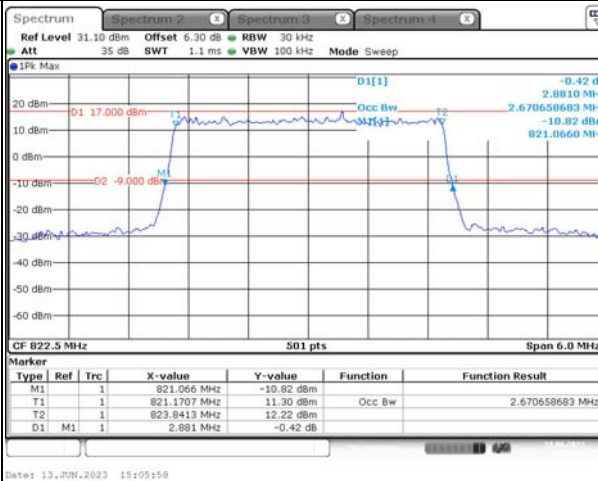
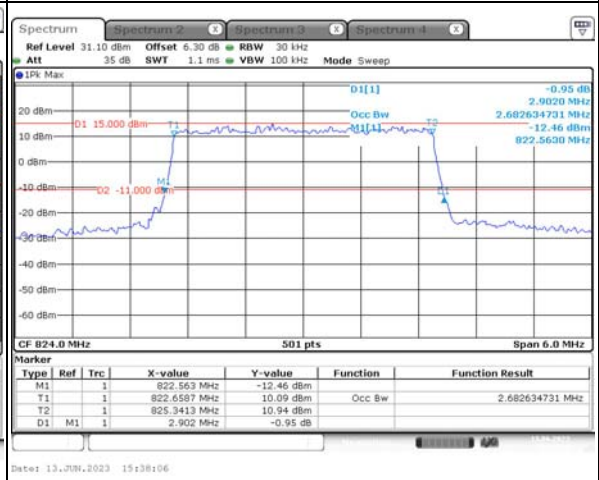
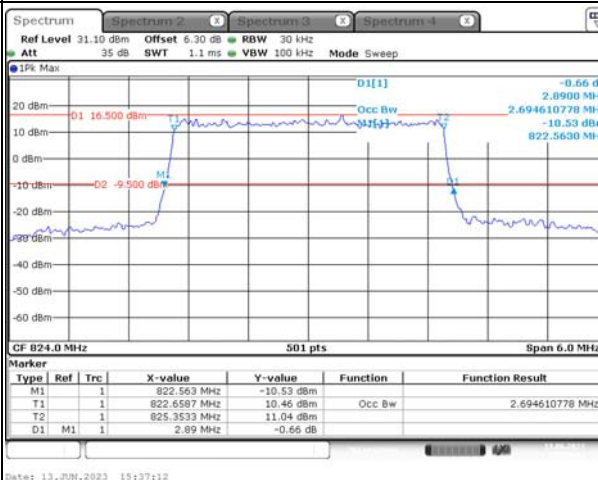
Lowest
For 22HMiddle
For 22HHighest
For 22H

Occupied Bandwidth

Channel

3MHz Bandwidth QPSK

3MHz Bandwidth 16QAM

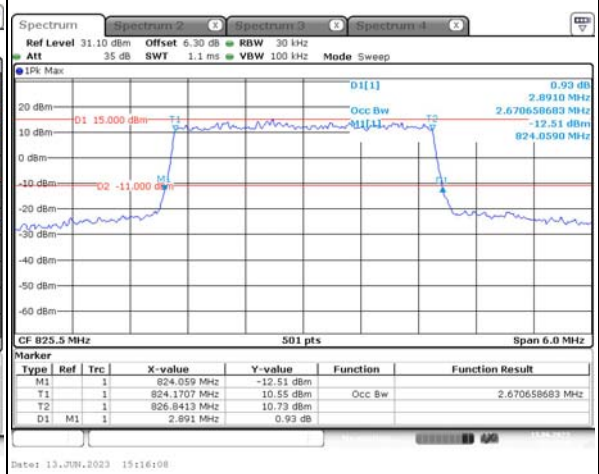
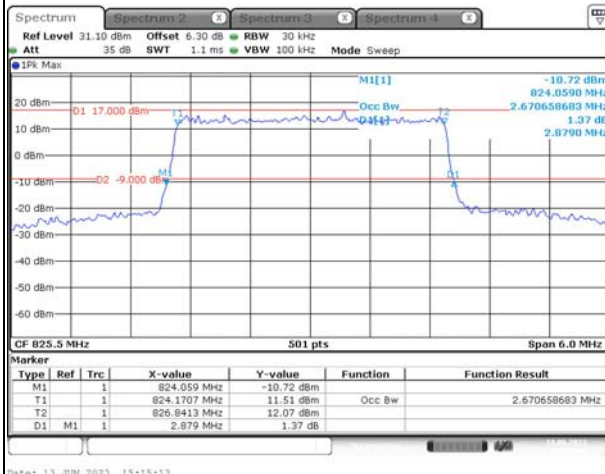
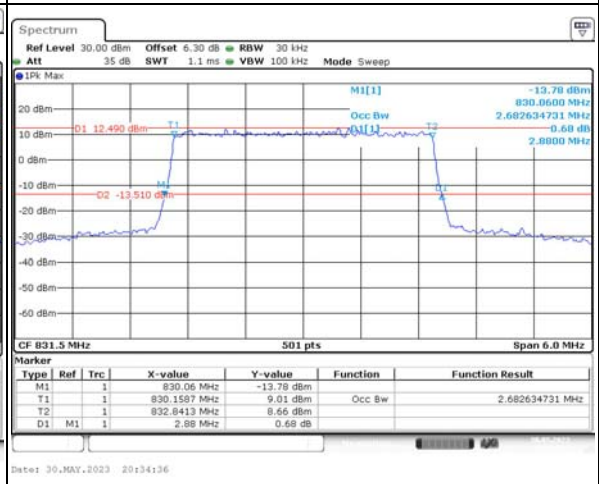
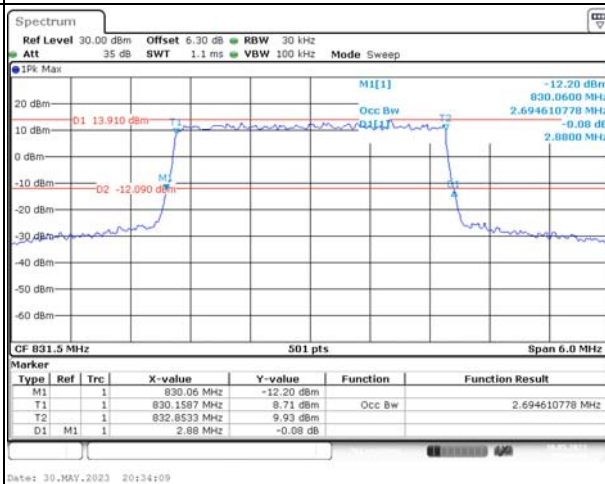
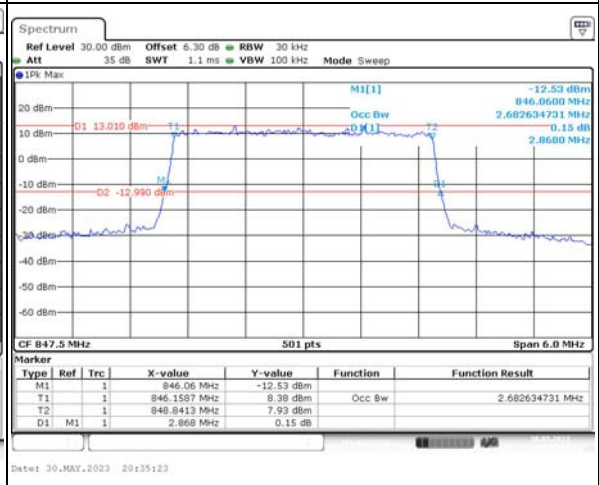
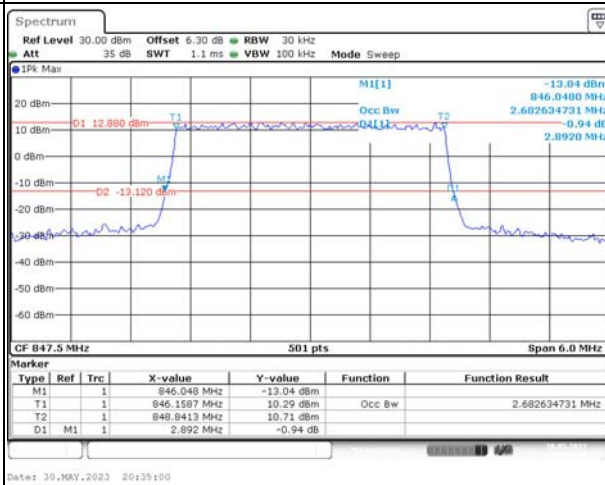
Lowest
For 90SHighest
For 90SCross
Channel

Occupied Bandwidth

Channel

3MHz Bandwidth QPSK

3MHz Bandwidth 16QAM

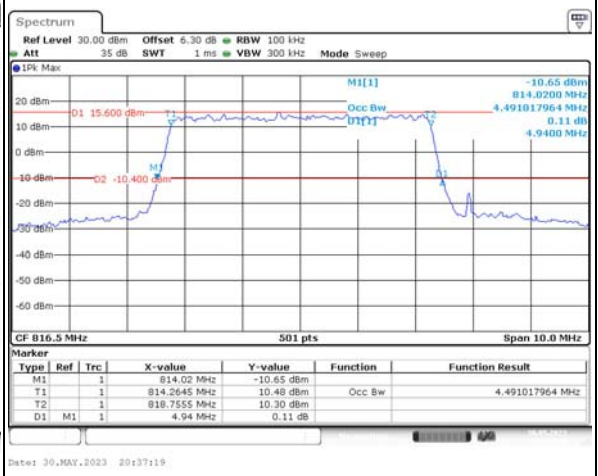
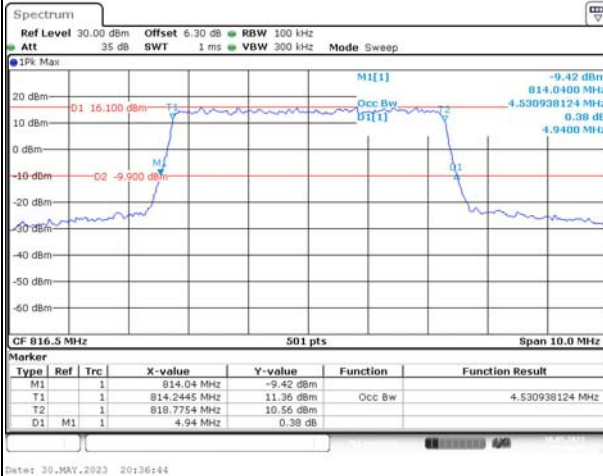
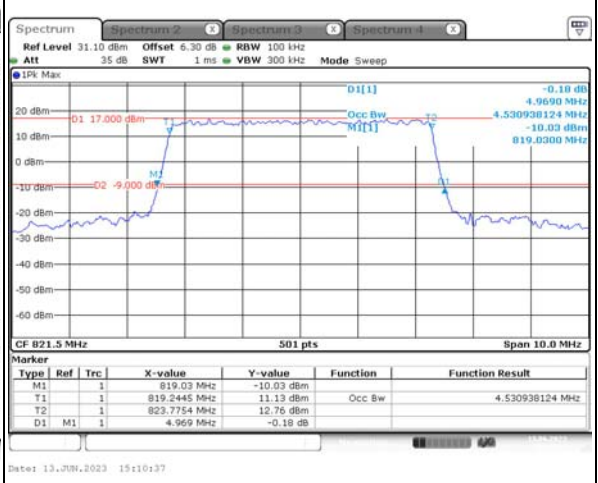
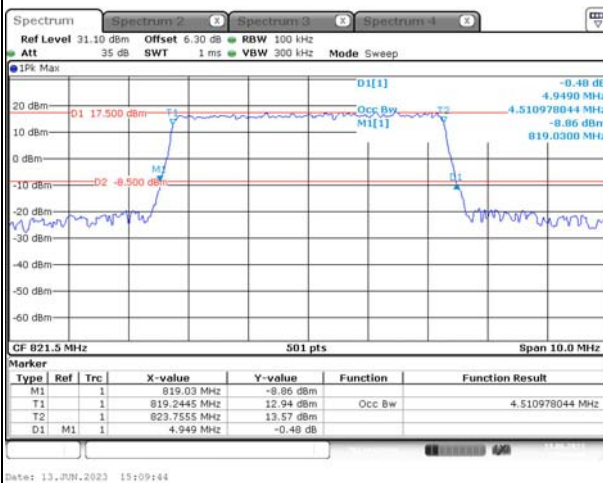
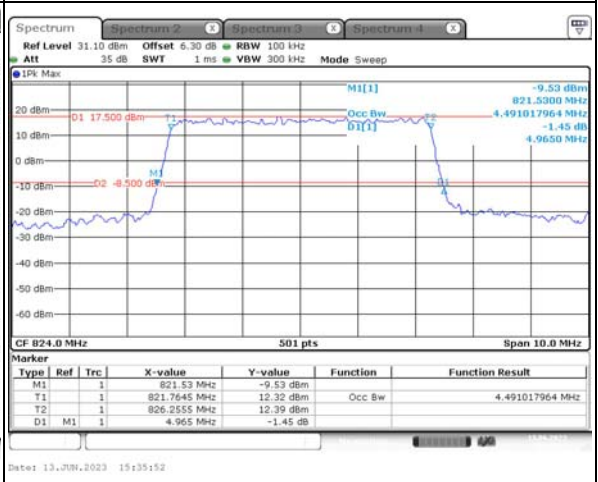
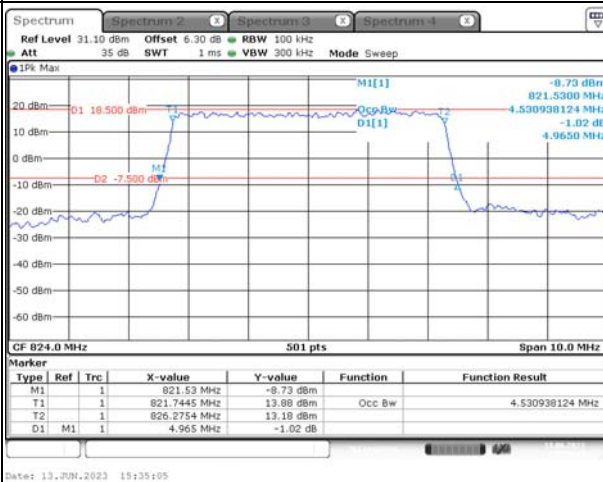
Lowest
For 22HMiddle
For 22HHighest
For 22H

Occupied Bandwidth

Channel

5MHz Bandwidth QPSK

5MHz Bandwidth 16QAM

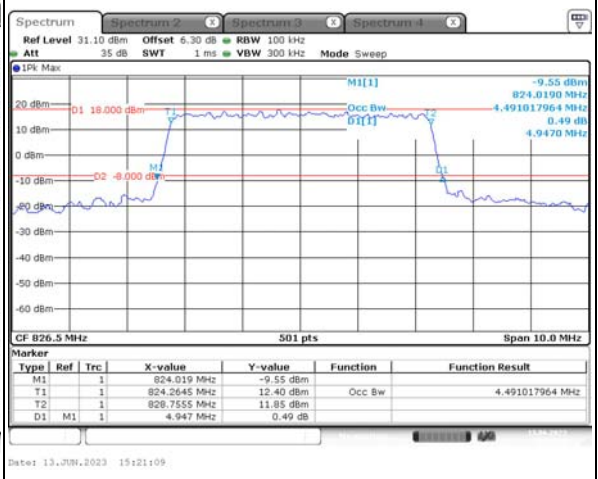
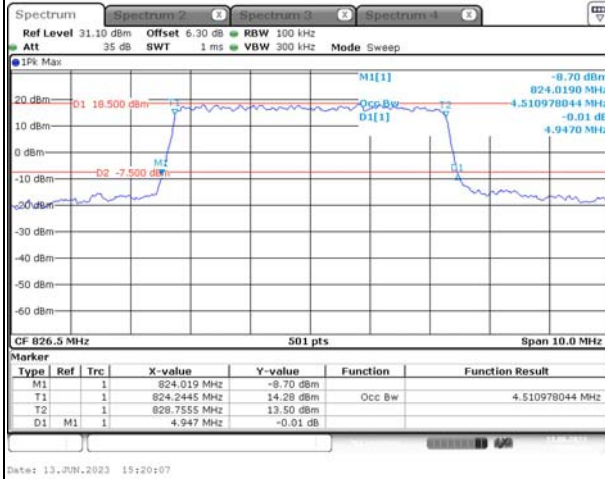
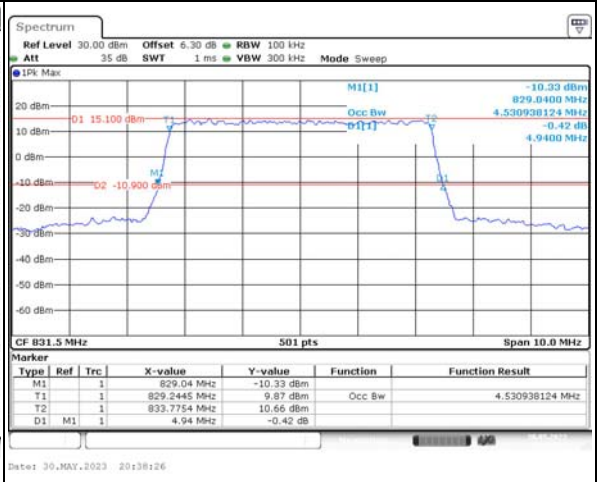
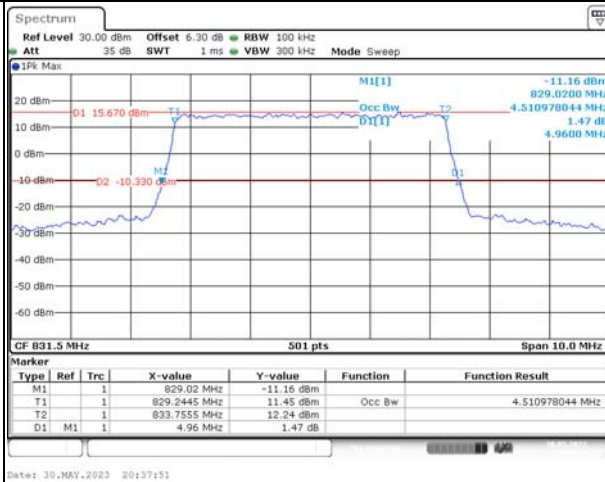
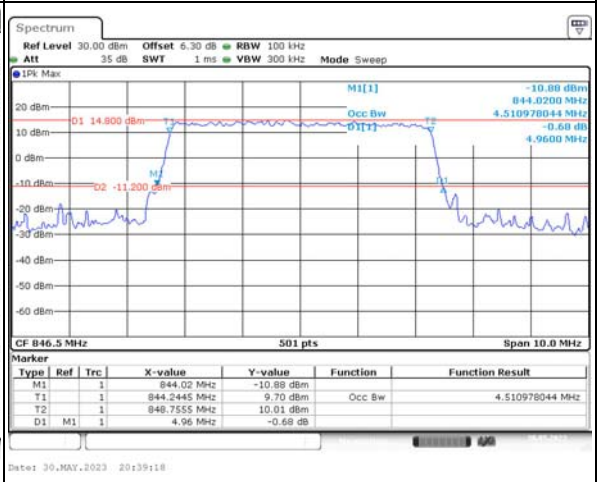
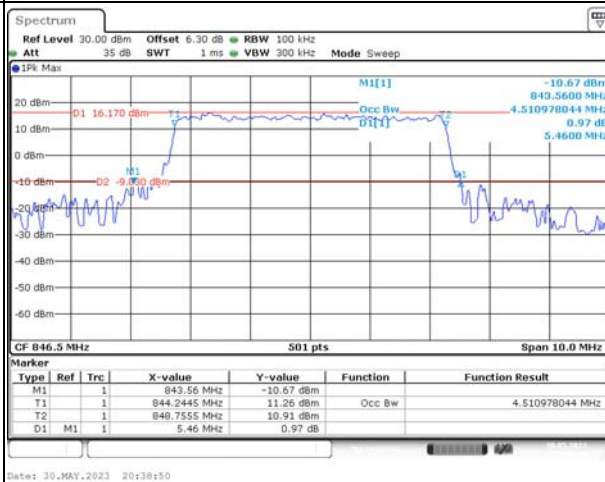
Lowest
For 90SHighest
For 90SCross
Channel

Occupied Bandwidth

Channel

5MHz Bandwidth QPSK

5MHz Bandwidth 16QAM

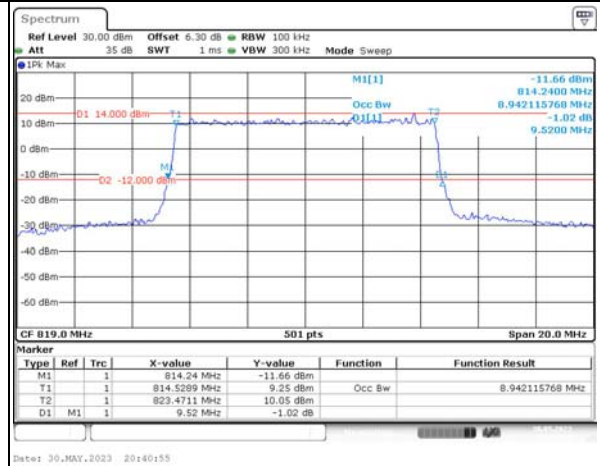
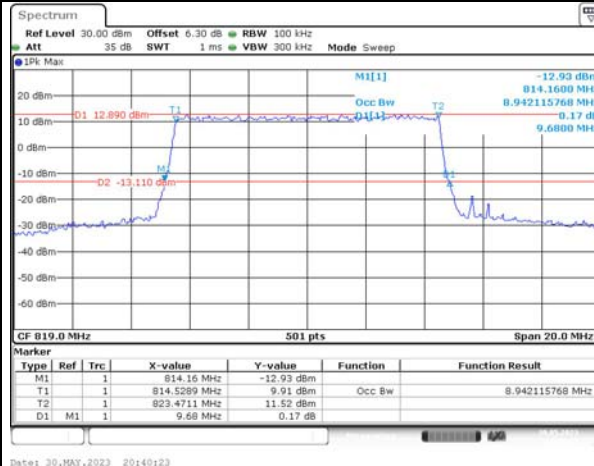
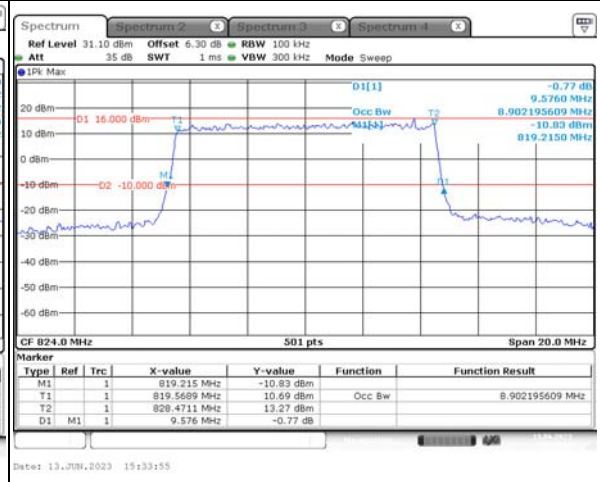
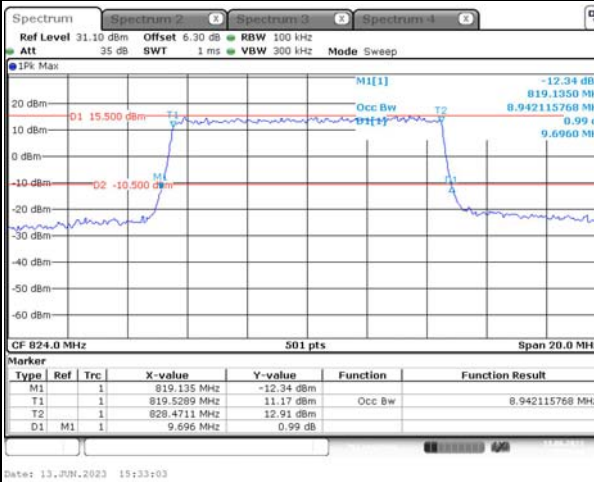
Lowest
For 22HMiddle
For 22HHighest
For 22H

Occupied Bandwidth

Channel

10MHz Bandwidth QPSK

10MHz Bandwidth 16QAM

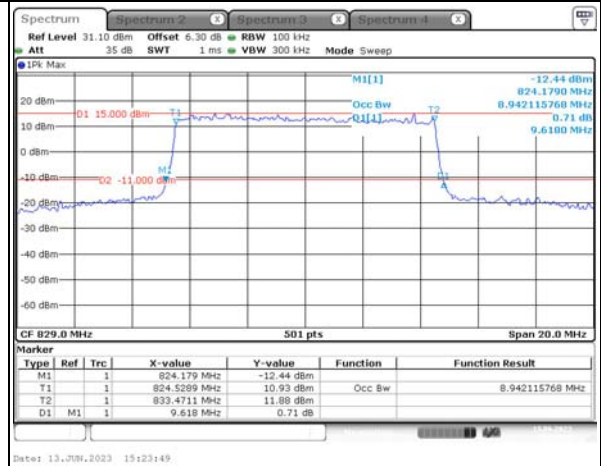
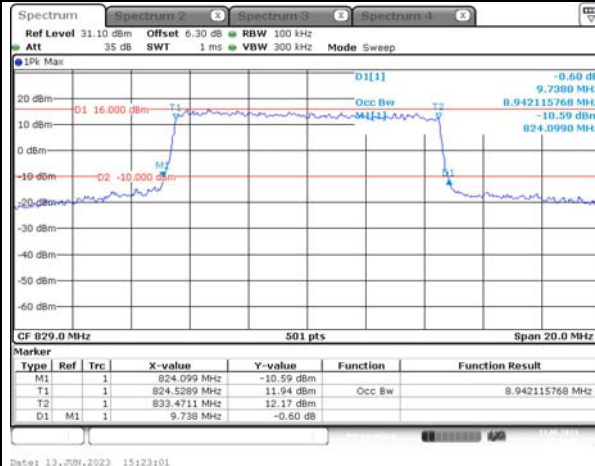
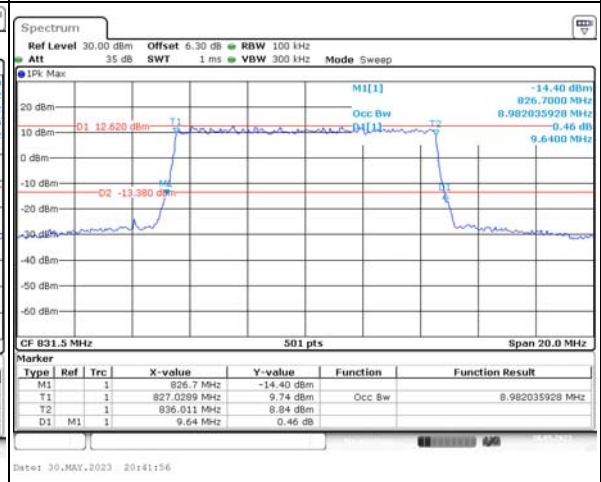
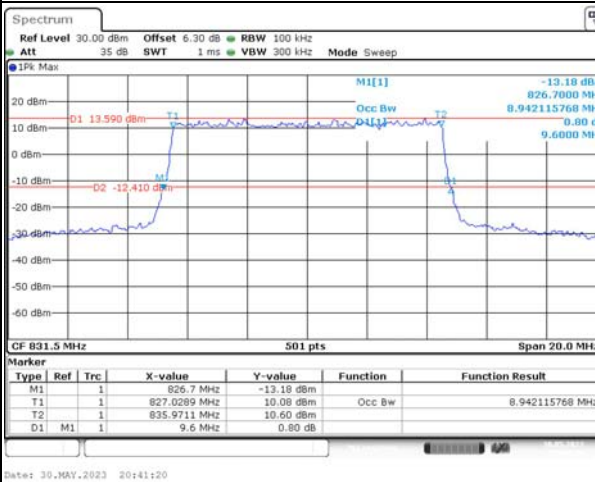
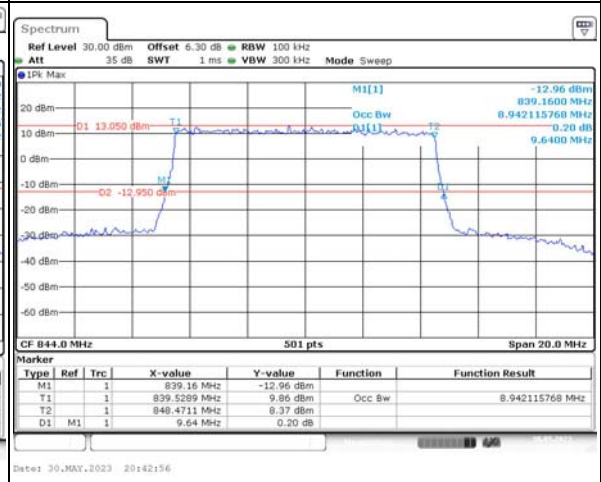
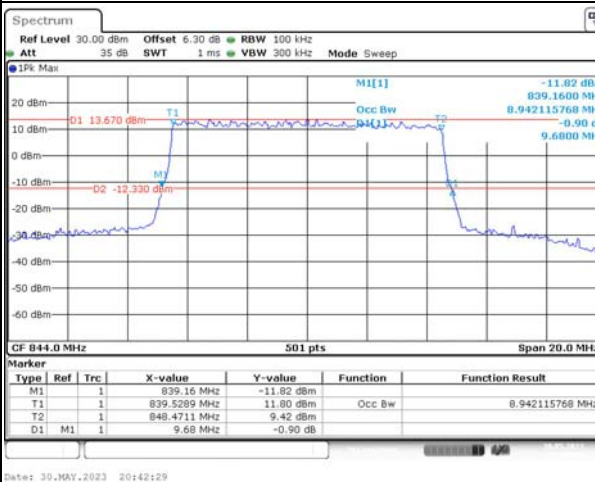
Lowest
For 90SCross
Channel

Occupied Bandwidth

Channel

10MHz Bandwidth QPSK

10MHz Bandwidth 16QAM

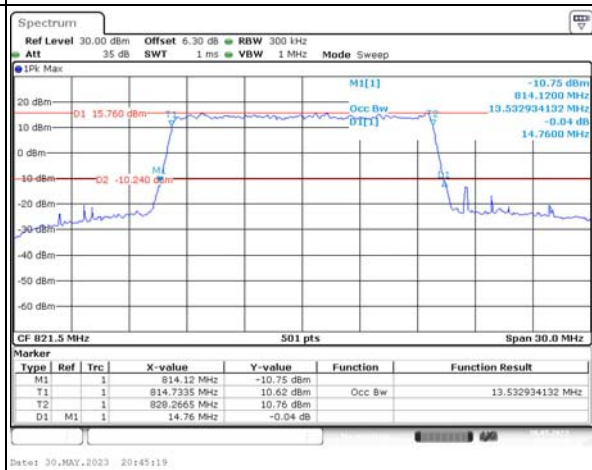
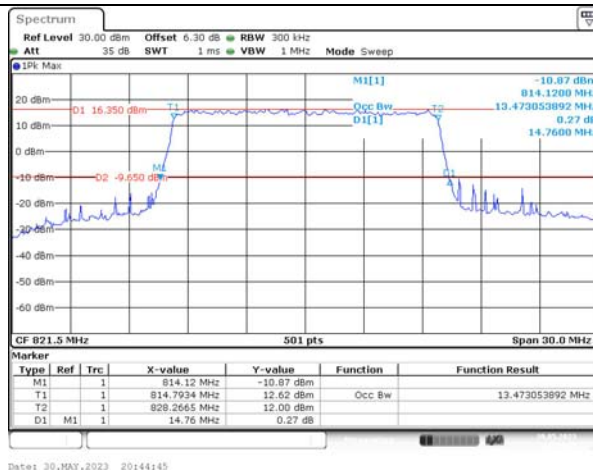
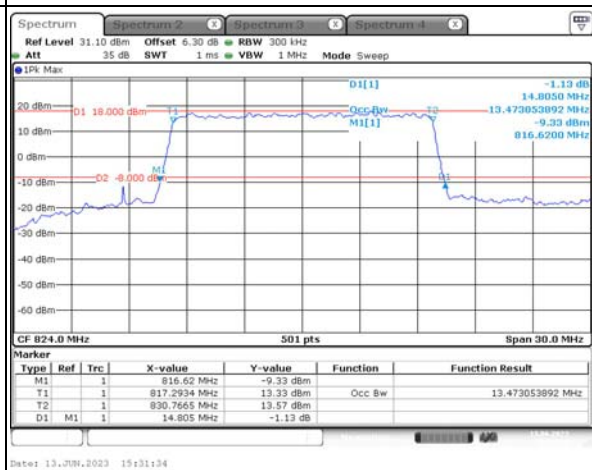
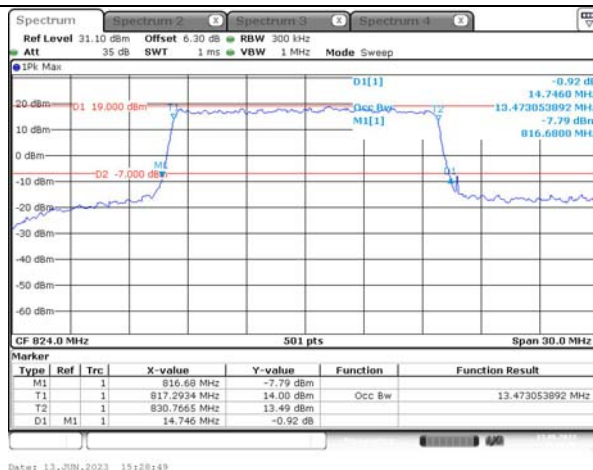
Lowest
For 22HMiddle
For 22HHighest
For 22H

Occupied Bandwidth

Channel

15MHz Bandwidth QPSK

15MHz Bandwidth 16QAM

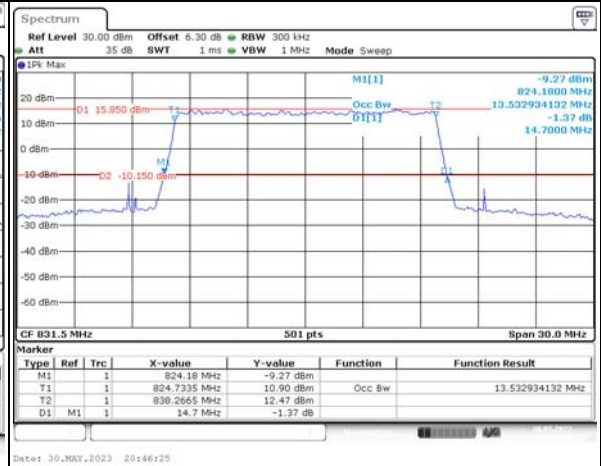
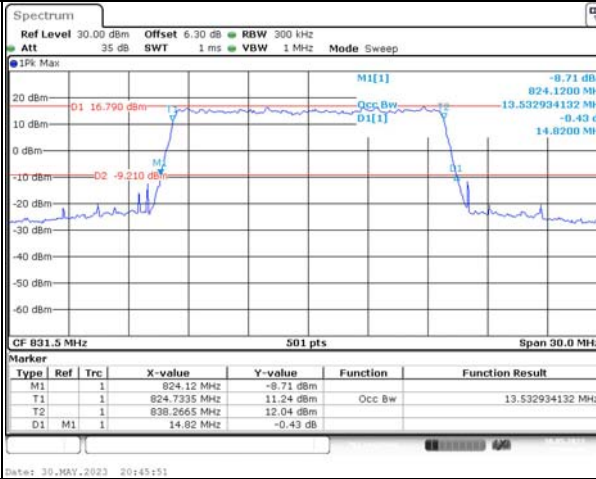
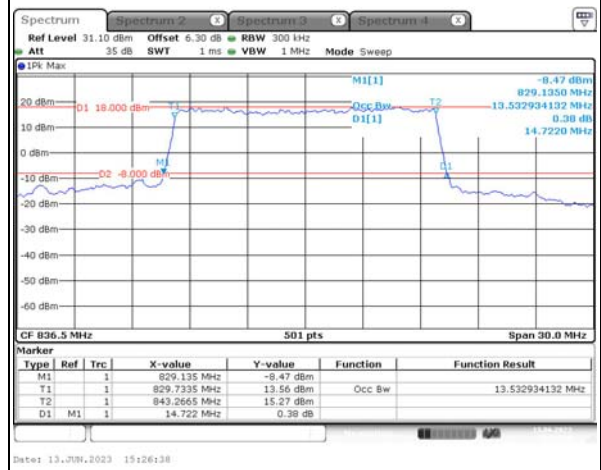
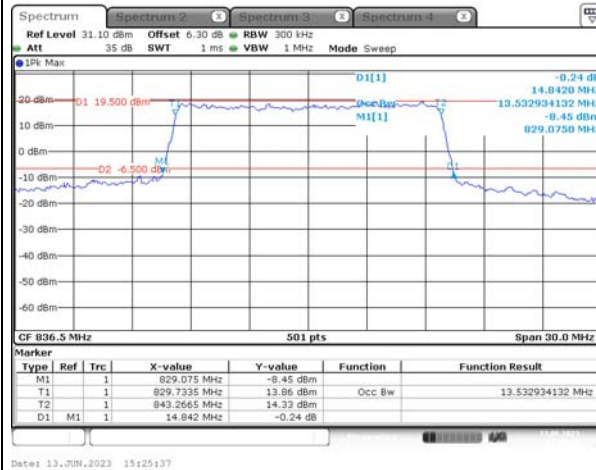
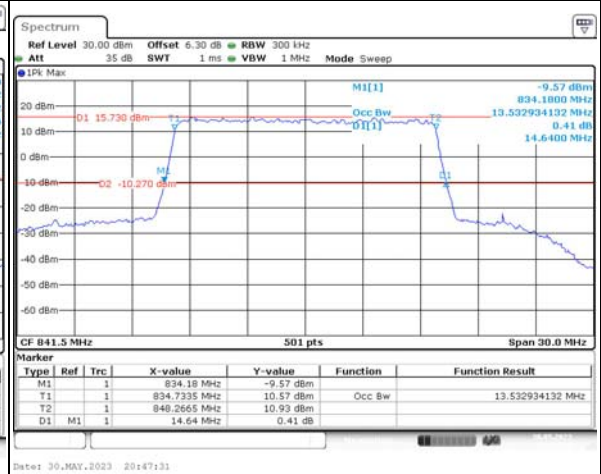
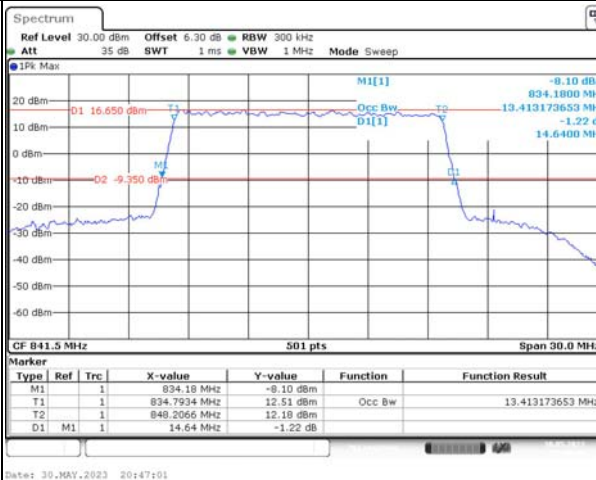
Lowest
For 90SCross
Channel

Occupied Bandwidth

Channel

15MHz Bandwidth QPSK

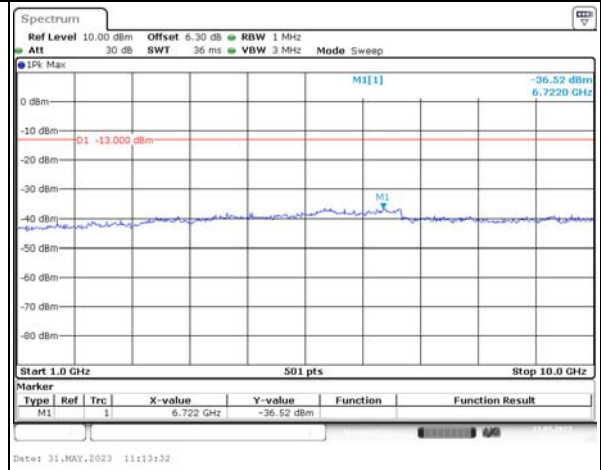
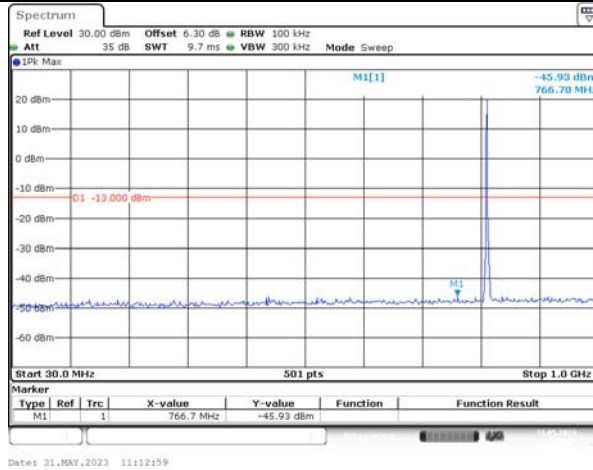
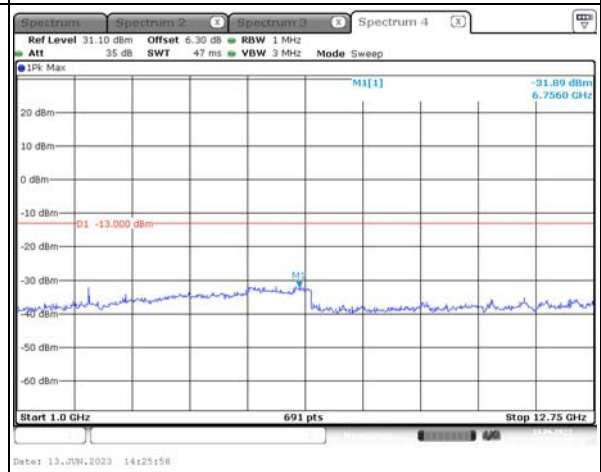
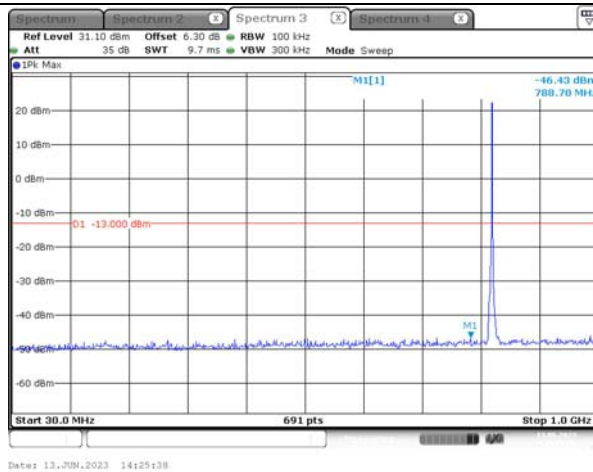
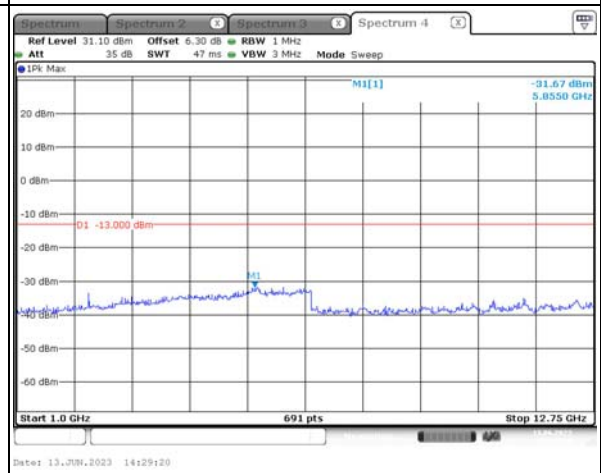
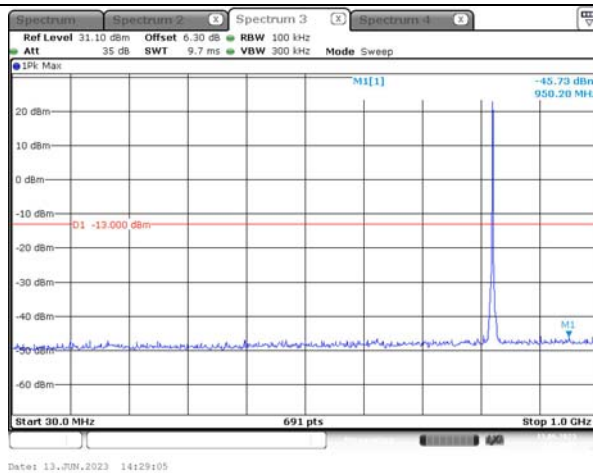
15MHz Bandwidth 16QAM

Lowest
For 22HMiddle
For 22HHighest
For 22H

Spurious Emissions at Antenna Terminal

Channel

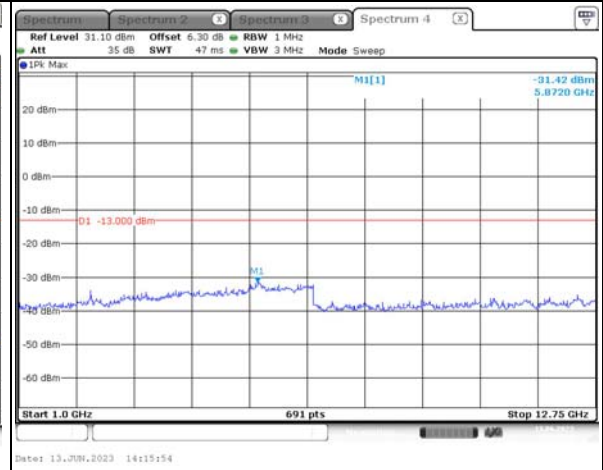
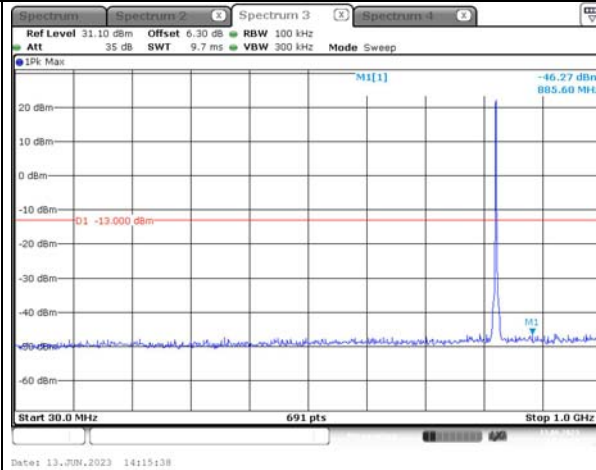
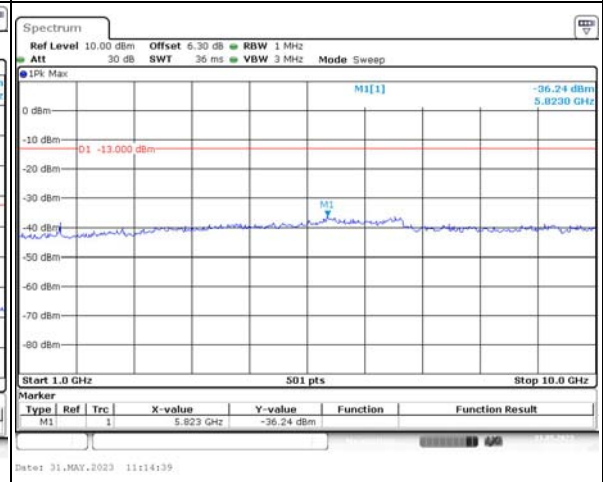
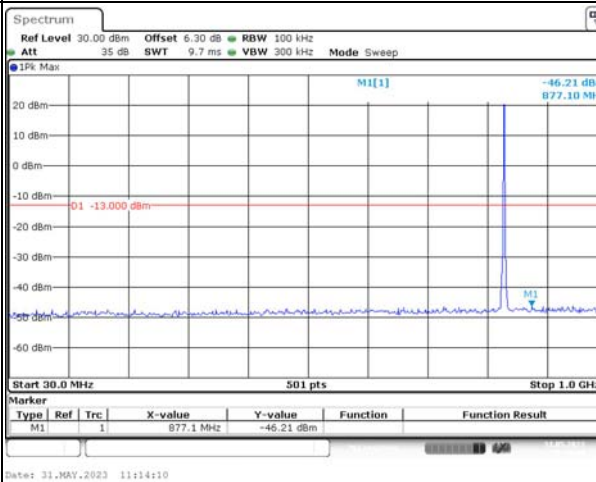
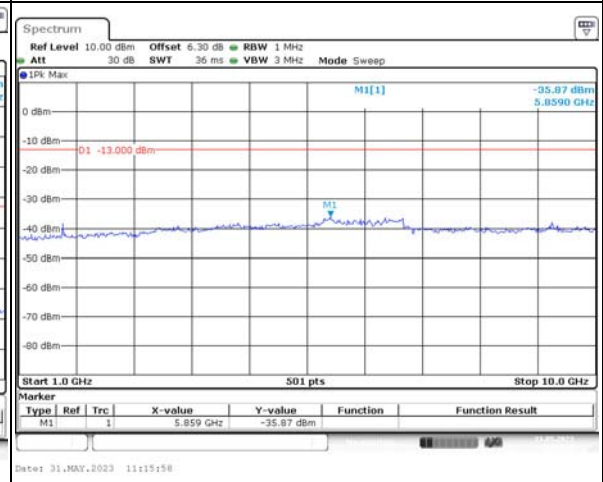
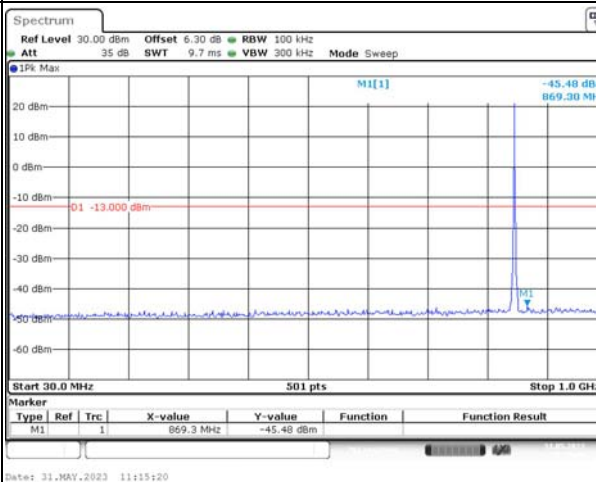
1.4MHz Bandwidth QPSK

Lowest
For 90SHighest
For 90SCross
Channel

Spurious Emissions at Antenna Terminal

Channel

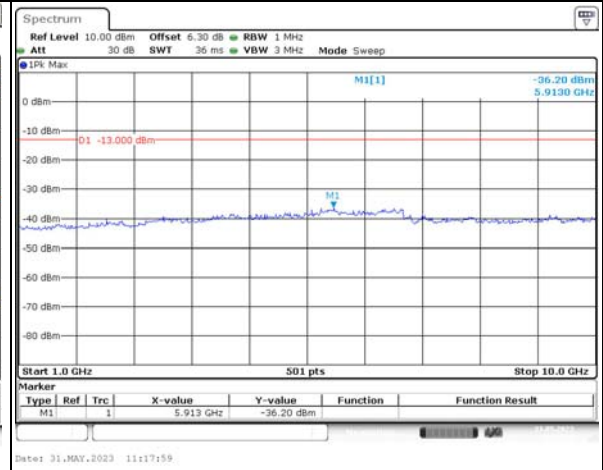
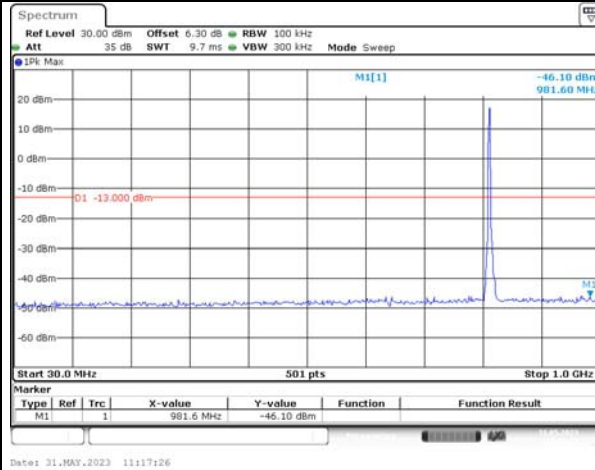
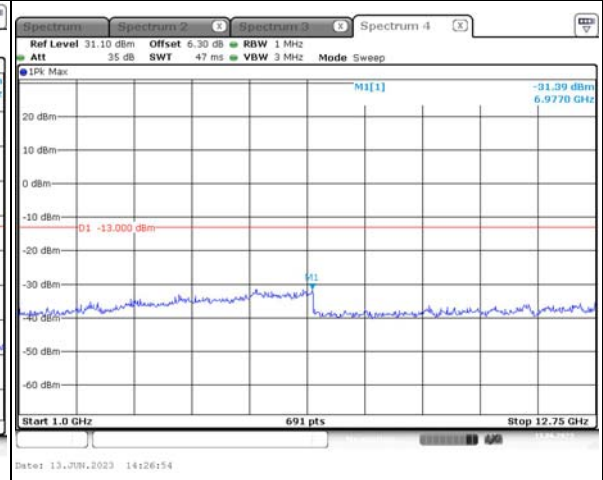
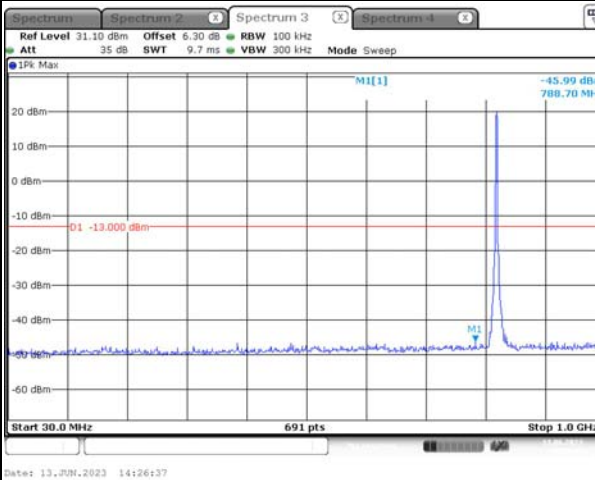
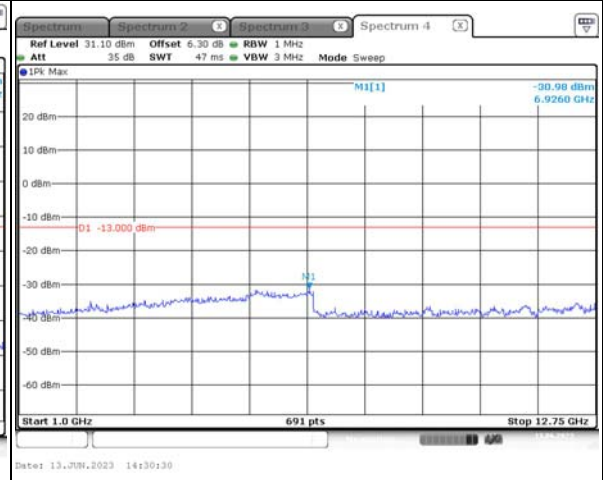
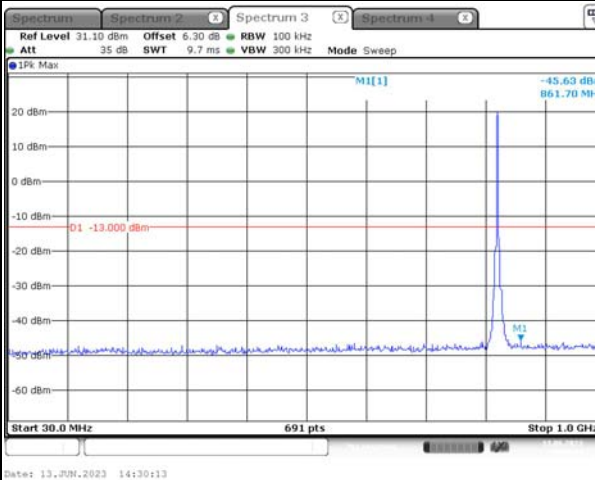
1.4MHz Bandwidth QPSK

Lowest
For 22HMiddle
For 22HHighest
For 22H

Spurious Emissions at Antenna Terminal

Channel

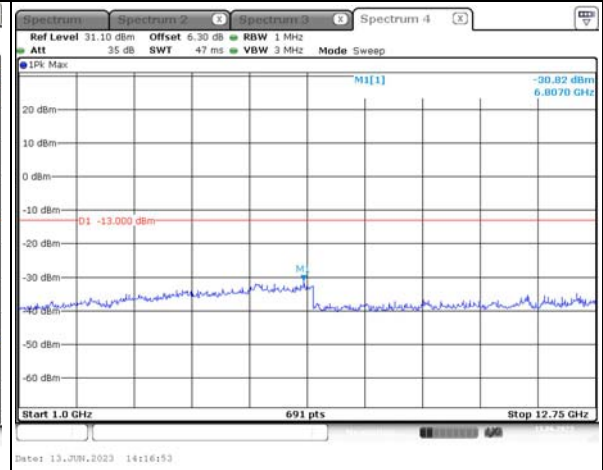
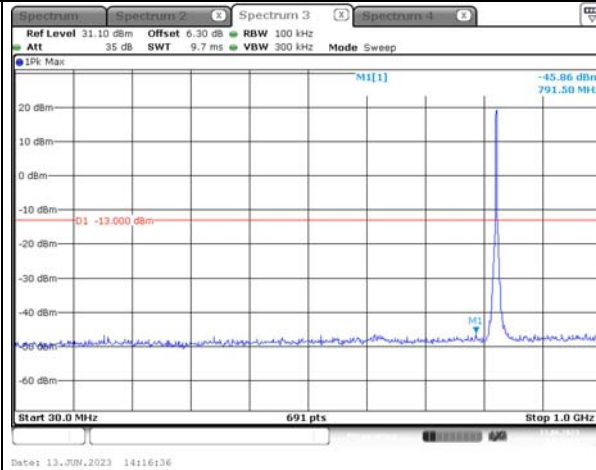
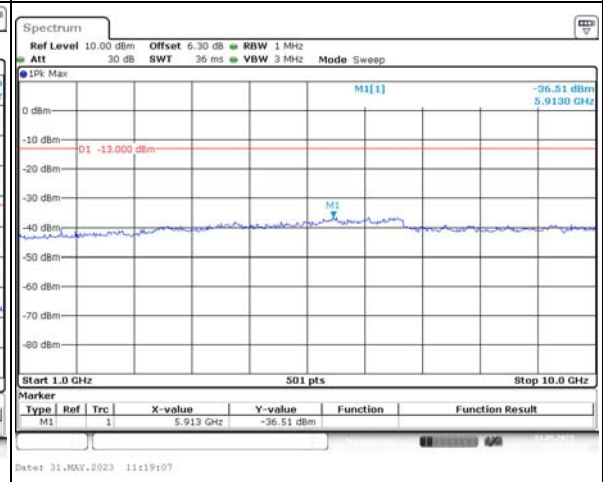
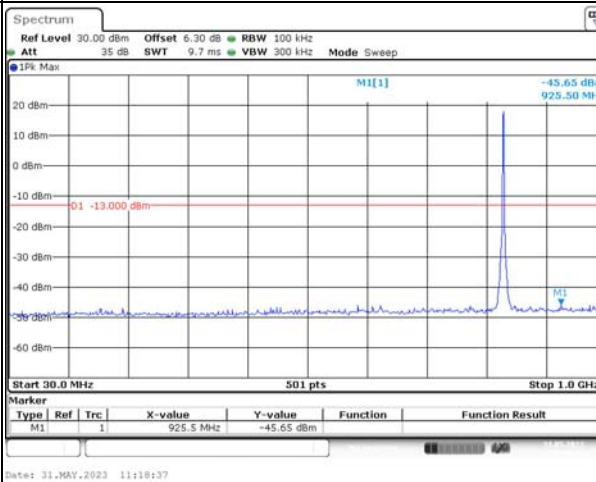
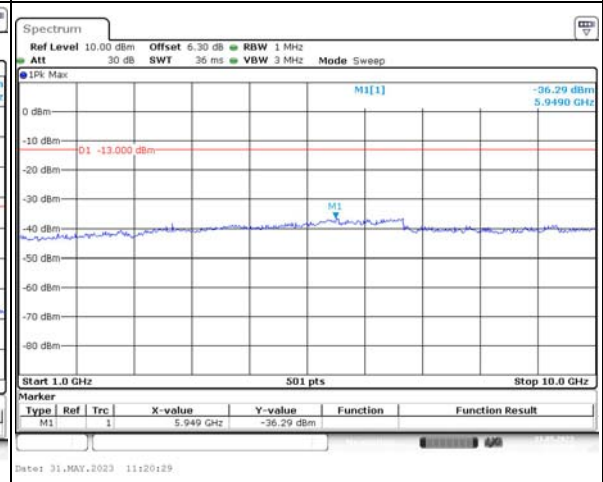
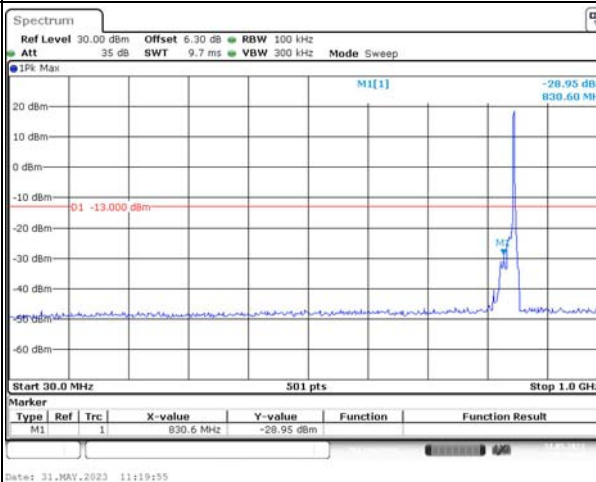
3MHz Bandwidth QPSK

Lowest
For 90SHighest
For 90SCross
Channel

Spurious Emissions at Antenna Terminal

Channel

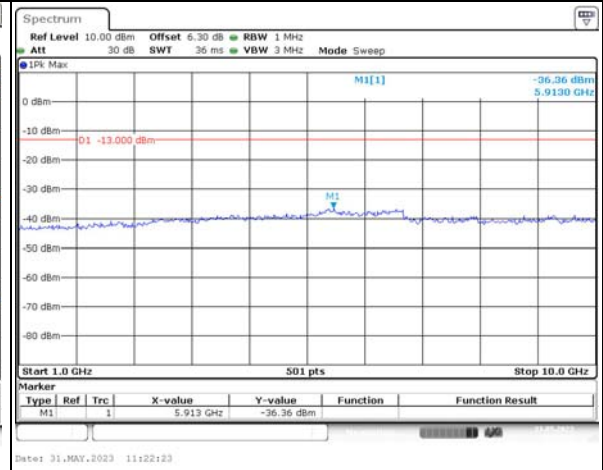
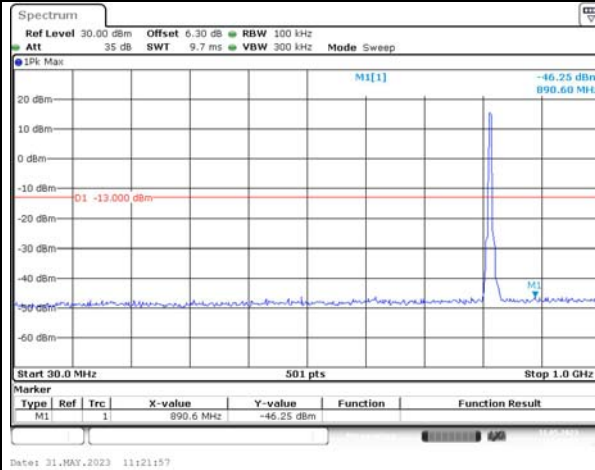
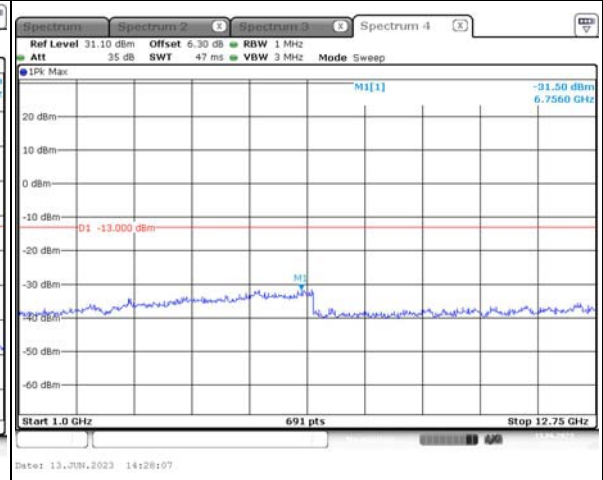
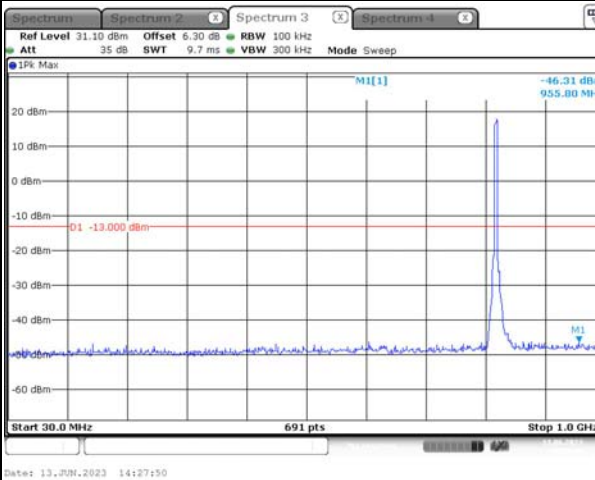
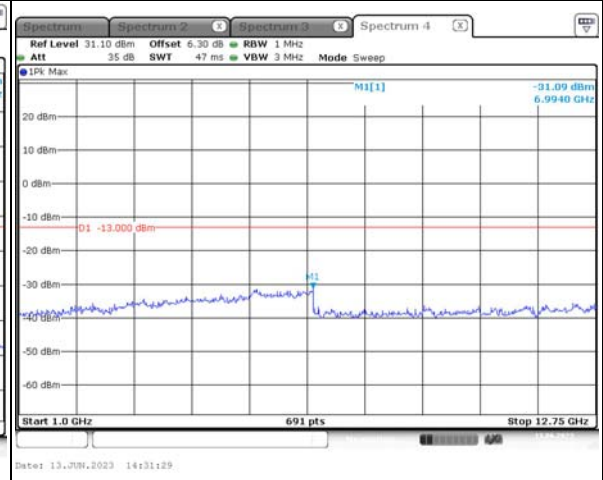
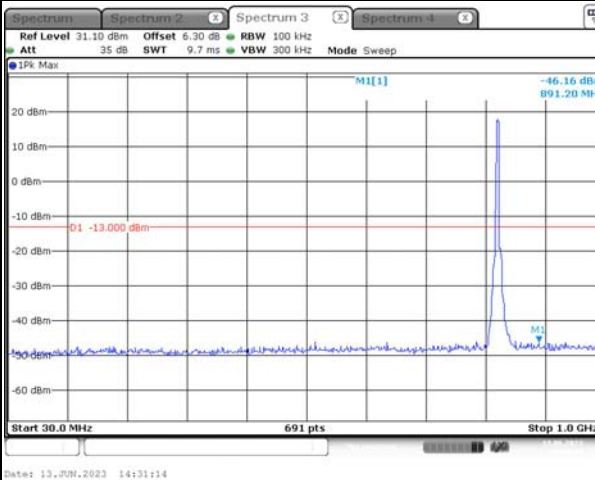
3MHz Bandwidth QPSK

Lowest
For 22HMiddle
For 22HHighest
For 22H

Spurious Emissions at Antenna Terminal

Channel

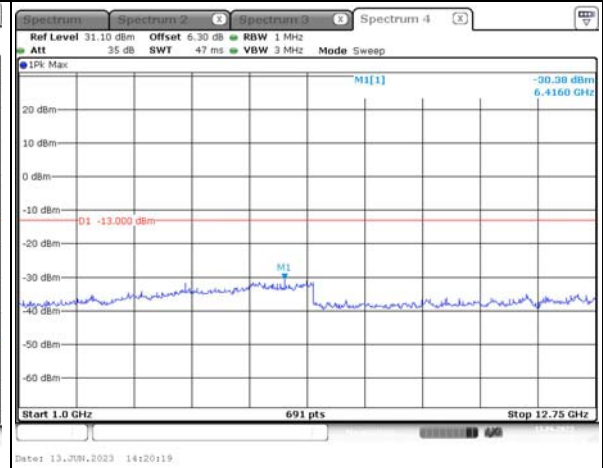
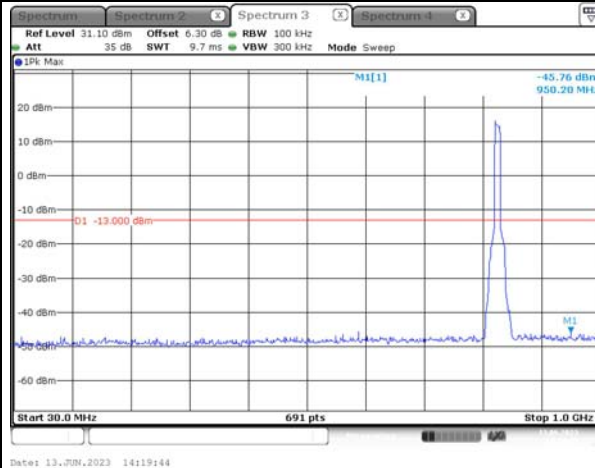
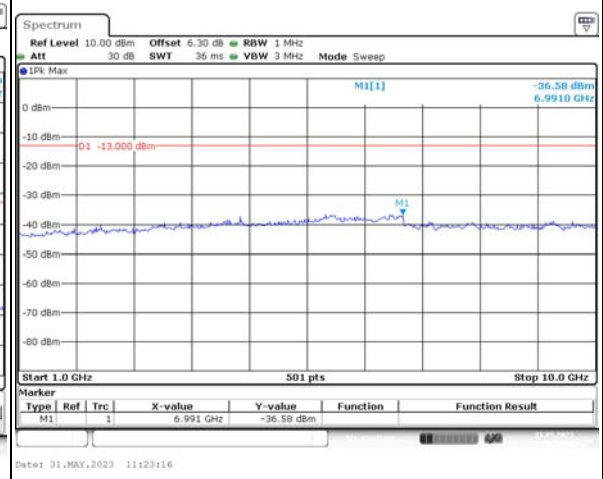
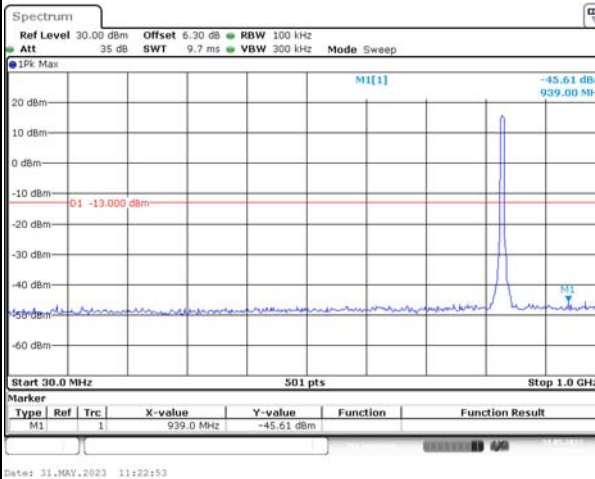
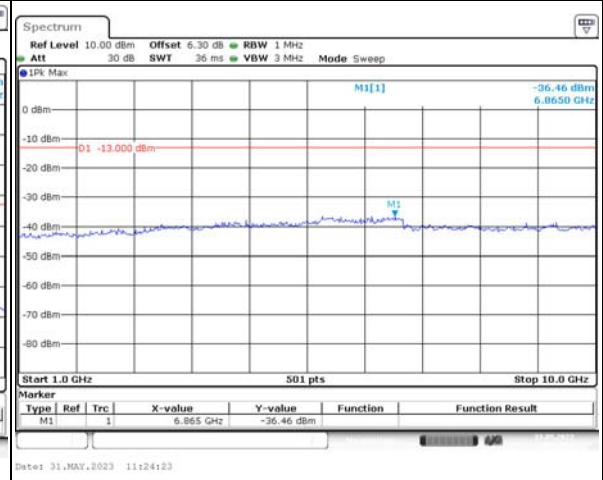
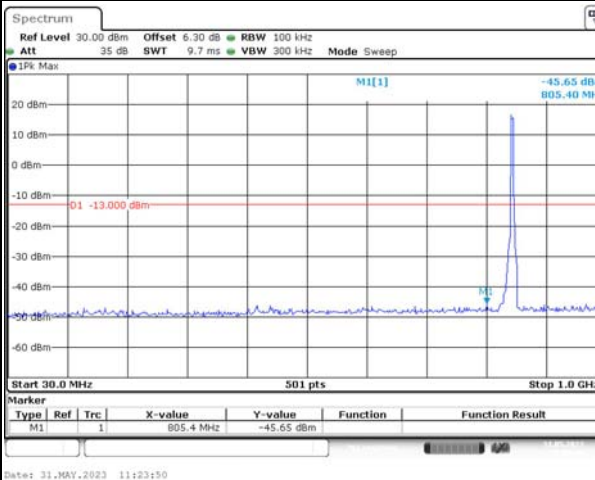
5MHz Bandwidth QPSK

Lowest
For 90SHighest
For 90SCross
Channel

Spurious Emissions at Antenna Terminal

Channel

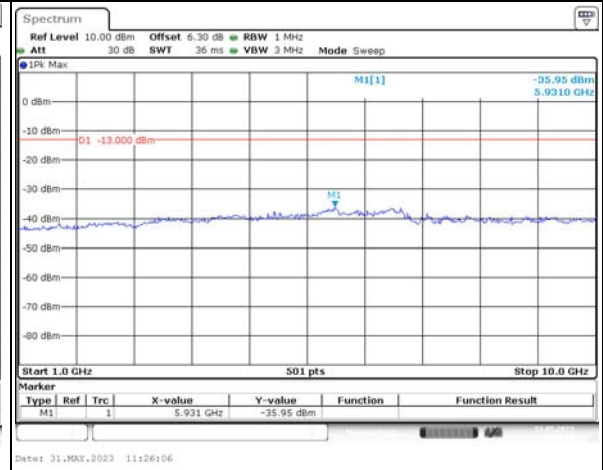
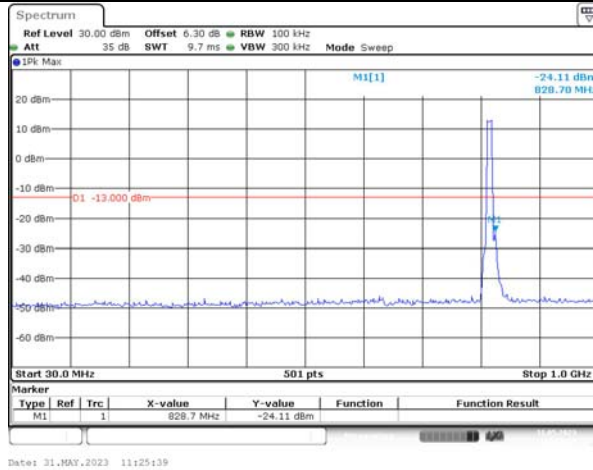
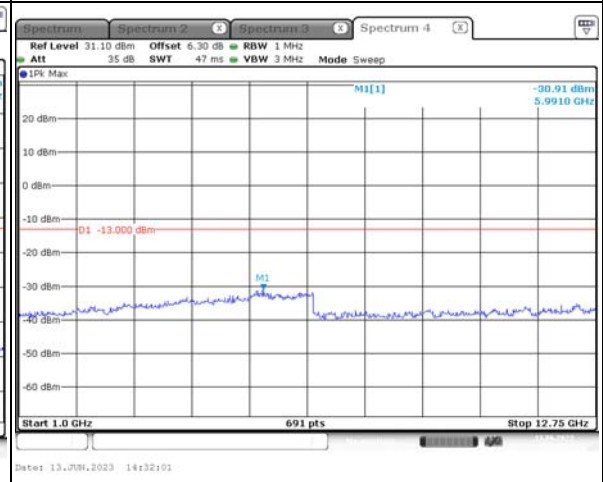
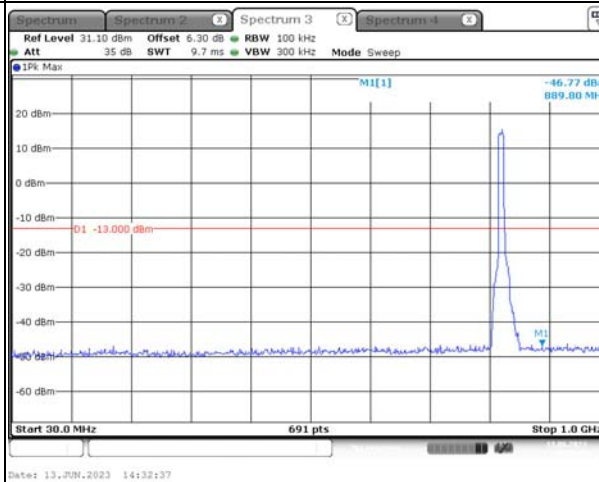
5MHz Bandwidth QPSK

Lowest
For 22HMiddle
For 22HHighest
For 22H

Spurious Emissions at Antenna Terminal

Channel

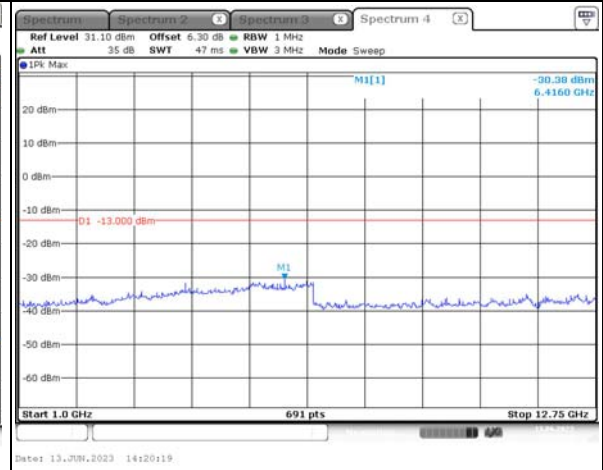
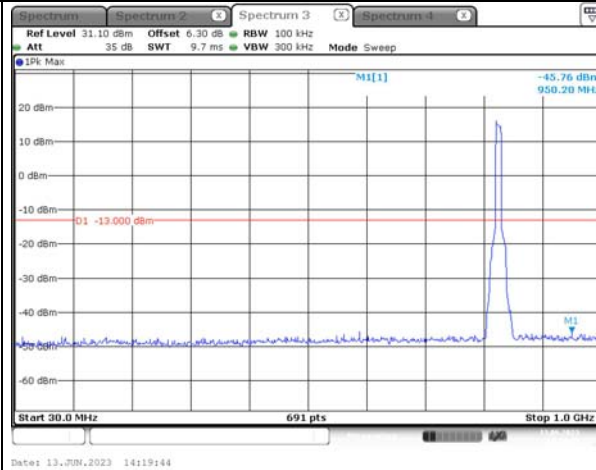
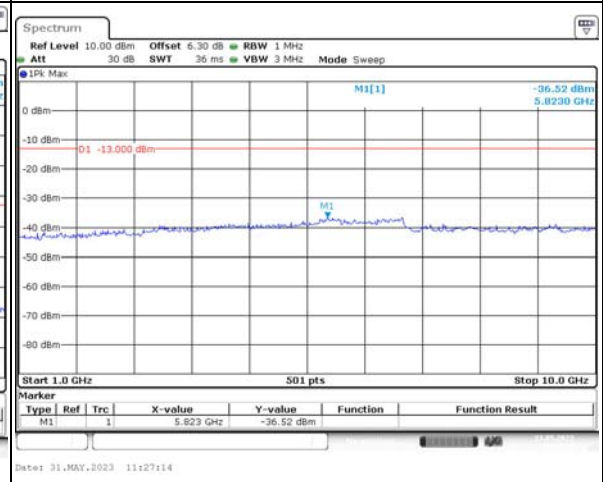
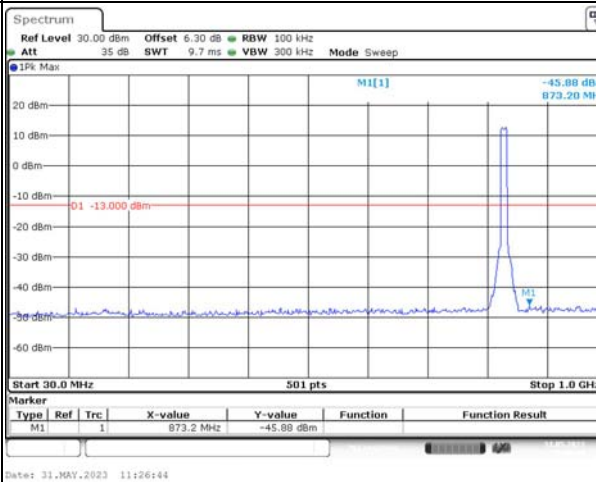
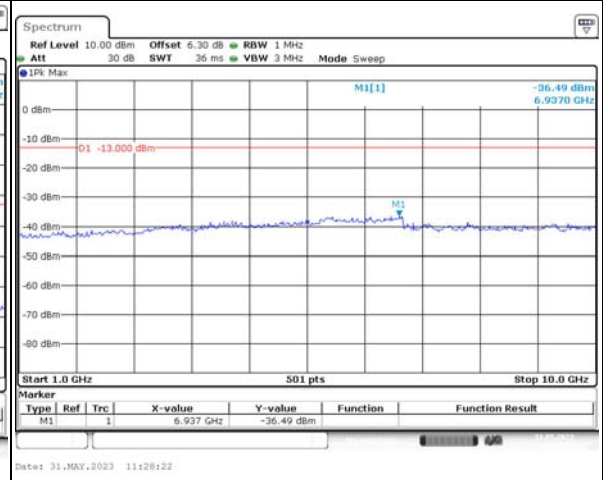
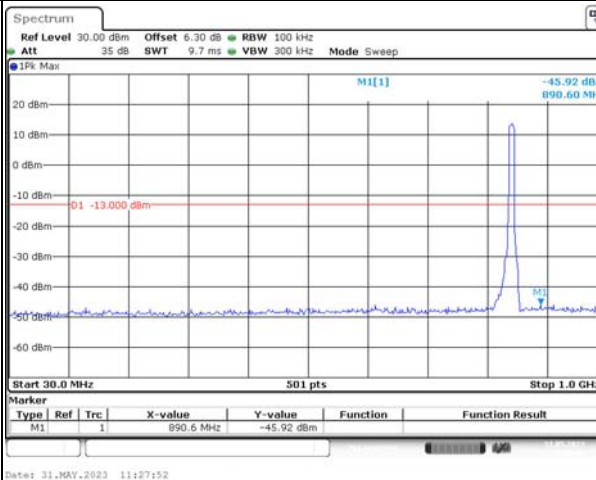
10MHz Bandwidth QPSK

Lowest
For 90SCross
Channel

Spurious Emissions at Antenna Terminal

Channel

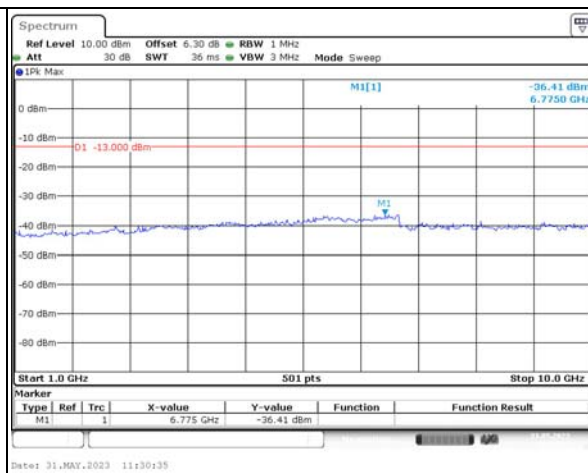
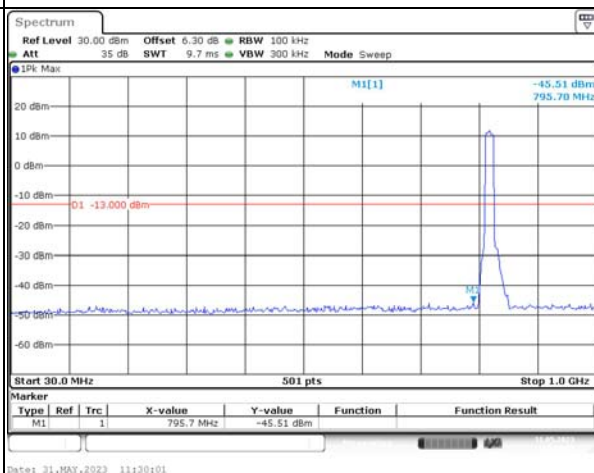
10MHz Bandwidth QPSK

Lowest
For 22HMiddle
For 22HHighest
For 22H

Spurious Emissions at Antenna Terminal

Channel

15MHz Bandwidth QPSK

Lowest
For 90SCross
Channel